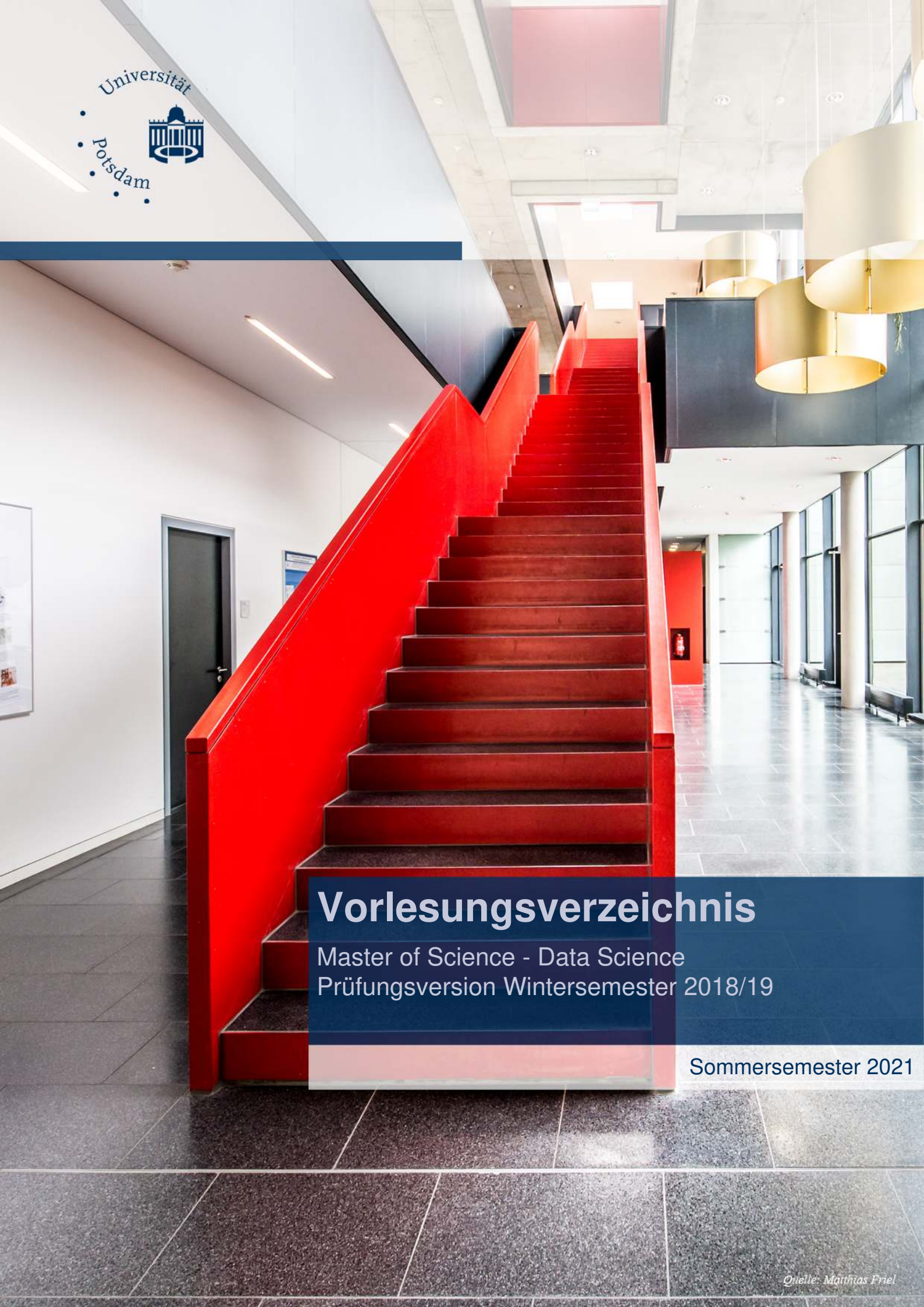

Vorlesungsverzeichnis

Master of Science - Data Science
Prüfungsversion Wintersemester 2018/19

Sommersemester 2021

Quelle: Matthias Friel

Inhaltsverzeichnis

Abkürzungen entnehmen Sie bitte Seite 5

Abkürzungen entnehmen Sie bitte Seite 5

Abkürzungen entnehmen Sie bitte Seite 5

Abkürzungsverzeichnis

Veranstaltungsarten

AG	Arbeitsgruppe
B	Blockveranstaltung
BL	Blockseminar
DF	diverse Formen
EX	Exkursion
FP	Forschungspraktikum
FS	Forschungsseminar
FU	Fortgeschrittenenübung
GK	Grundkurs
KL	Kolloquium
KU	Kurs
LK	Lektürekurs
OS	Oberseminar
P	Projektseminar
PJ	Projekt
PR	Praktikum
PU	Praktische Übung
RE	Repetitorium
RV	Ringvorlesung
S	Seminar
S1	Seminar/Praktikum
S2	Seminar/Projekt
S3	Schulpraktische Studien
S4	Schulpraktische Übungen
SK	Seminar/Kolloquium
SU	Seminar/Übung
TU	Tutorium
U	Übung
UN	Unterricht
UP	Praktikum/Übung
V	Vorlesung
VE	Vorlesung/Exkursion
VP	Vorlesung/Praktikum
VS	Vorlesung/Seminar
VU	Vorlesung/Übung
WS	Workshop

Veranstaltungsrhytmen

wöch.	wöchentlich
14t.	14-täglich
Einzel	Einzeltermin
Block	Block
BlockSa	Block (inkl. Sa)
BlockSaSo	Block (inkl. Sa,So)

Andere

N.N.	Noch keine Angaben
n.V.	Nach Vereinbarung
LP	Leistungspunkte
SWS	Semesterwochenstunden
	Belegung über PULS
PL	Prüfungsleistung
PNL	Prüfungsnebenleistung
SL	Studienleistung
L	sonstige Leistungserfassung

Vorlesungsverzeichnis

Bridge Modules

FM2 - Foundations of Computer Science

Für dieses Modul werden aktuell keine Lehrveranstaltungen angeboten

MAT-DSBM1 - Foundations of Stochastics

Für dieses Modul werden aktuell keine Lehrveranstaltungen angeboten

Compulsory Modules

MATVMD837 - Statistical Data Analysis

Für dieses Modul werden aktuell keine Lehrveranstaltungen angeboten

MATVMD838 - Bayesian Inference and Data Assimilation

88991 VU - Bayesian inference and data assimilation

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	V	Mo	08:15 - 09:45	wöch.	Online.Veranstalt	12.04.2021	Prof. Dr. Sebastian Reich
1	U	Di	08:15 - 09:45	wöch.	Online.Veranstalt	13.04.2021	Jakiw Ioan Pidstrigach
1	U	Di	12:15 - 13:45	wöch.	Online.Veranstalt	13.04.2021	Jakiw Ioan Pidstrigach
1	V	Mi	08:15 - 09:45	wöch.	Online.Veranstalt	14.04.2021	Prof. Dr. Sebastian Reich
1	U	Fr	12:15 - 13:45	wöch.	Online.Veranstalt	16.04.2021	Jakiw Ioan Pidstrigach

Leistungen in Bezug auf das Modul

PNL 517411 - Vertiefende Vorlesung im Bereich Bayes´sche Inferenz und Datenassimilation und Übung (unbenotet)

INF-DS-C1 - Machine Learning

86373 VU - Intelligente Datenanalyse & Maschinelles Lernen I

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
Alle	V	Mo	10:00 - 12:00	wöch.	Online.Veranstalt	12.04.2021	Prof. Dr. Tobias Scheffer
1	U	Mi	10:00 - 12:00	wöch.	Online.Veranstalt	14.04.2021	Prof. Dr. Tobias Scheffer
2	U	Do	12:00 - 14:00	wöch.	Online.Veranstalt	15.04.2021	Prof. Dr. Tobias Scheffer
3	U	Fr	14:00 - 16:00	wöch.	Online.Veranstalt	16.04.2021	Prof. Dr. Tobias Scheffer

Kommentar

Die Veranstaltung beschäftigt sich mit Algorithmen, die aus Daten lernen können. Algorithmen des maschinellen Lernens gewinnen aus Daten Modelle, mit denen sich dann Vorhersagen über das beobachtete System treffen lassen. Anwendungen für Datenanalyse-Verfahren erstrecken sich von der Vorhersage von Kreditrisiken über die Auswertung astronomischer Daten bis zu persönlichen Musikempfehlungen. Die Veranstaltung setzt sich aus einem Vorlesungs- und einem Projektteil zusammen. Der Vorlesungsteil vermittelt die Grundlagen des maschinellen Lernens. Im Projektteil werden anwendungsnahe Aufgaben eigenständig in Python bearbeitet.

Leistungsnachweis

Projektaufgabe, Klausur oder mündliche Prüfung

Leistungen in Bezug auf das Modul

PNL 557103 - Laborübung (unbenotet)

Abkürzungen entnehmen Sie bitte Seite 5

INF-DS-C2 - Data Infrastructures and Software Engineering

86425 VU - Principles of Data- and Knowledge-Base Systems

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
Alle	V	Fr	14:00 - 16:00	wöch.	Online.Veranstalt	16.04.2021	Prof. Dr. Torsten Schaub
1	U	Di	16:00 - 18:00	wöch.	Online.Veranstalt	20.04.2021	Francois Laferriere
2	U	Do	14:00 - 16:00	wöch.	Online.Veranstalt	22.04.2021	Francois Laferriere
3	U	Mi	12:00 - 14:00	wöch.	Online.Veranstalt	21.04.2021	Ilona Petrenko
	Für Lehramtsstudierende.						

Links:

moodle	https://moodle2.uni-potsdam.de/enrol/index.php?id=22093

Literatur

Principles of Database & Knowledge-Base Systems by Jeffrey D. Ullman W. H. Freeman & Co. New York, NY, USA

Leistungen in Bezug auf das Modul

PNL 557111 - Vorlesung und Übung (unbenotet)

86426 PR - Principles of Data- and Knowledge-Base Systems

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	PR	Mo	16:00 - 18:00	Einzel	Online.Veranstalt	26.04.2021	Prof. Dr. Torsten Schaub, Francois Laferriere

Links:

moodle	https://moodle2.uni-potsdam.de/enrol/index.php?id=22093

Literatur

Principles of Database & Knowledge-Base Systems by Jeffrey D. Ullman W. H. Freeman & Co. New York, NY, USA

86642 VU - Software Engineering II

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
Alle	V	Mo	12:00 - 14:00	wöch.	Online.Veranstalt	19.04.2021	Dr.-Ing. Sandro Schulze
1	U	Do	14:00 - 16:00	wöch.	Online.Veranstalt	22.04.2021	Dr.-Ing. Sandro Schulze
2	U	Fr	08:00 - 10:00	wöch.	Online.Veranstalt	23.04.2021	Dr.-Ing. Sandro Schulze

Links:

Moodle-Kurs - bitte anmelden!	https://moodle2.uni-potsdam.de/course/view.php?id=28053

Kommentar

Die Veranstaltungen beginnen erst in der zweiten Vorlesungswoche ab 19. April.

Leistungen in Bezug auf das Modul

PNL 557111 - Vorlesung und Übung (unbenotet)

88736 VU - Datenbanksysteme I

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	VU	N.N.	N.N.	wöch.	N.N.	N.N.	Prof. Dr. Felix Naumann

Kommentar

Angaben zum Lehrinhalt in der Beschreibung aufrufbar unter https://hpi.de/studium/lehrveranstaltungen.html

Voraussetzung

Voraussetzungen werden in den Lehrinhaltsbeschreibungen unter https://hpi.de/studium/lehrveranstaltungen.html benannt.

Bemerkung

Unter https://hpi.de/studium/lehrveranstaltungen.html sind folgende Angaben aufrufbar:

- Raum und Zeit
- Lehrinhalt und Leistungserfassung
- Teilnehmerbegrenzung

Leistungen in Bezug auf das Modul

PNL 557111 - Vorlesung und Übung (unbenotet)

88842 VU - Distributed Data Management

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	V	N.N.	N.N.	wöch.	N.N.	N.N.	Thorsten Papenbrock;

Kommentar

Angaben zum Lehrinhalt in der Beschreibung aufrufbar unter https://hpi.de/studium/lehrveranstaltungen.html

Voraussetzung

Voraussetzungen werden in den Lehrinhaltsbeschreibungen unter https://hpi.de/studium/lehrveranstaltungen.html benannt.

Bemerkung

Unter https://hpi.de/studium/lehrveranstaltungen.html sind folgende Angaben aufrufbar:

- Raum und Zeit
- Lehrinhalt und Leistungserfassung
- Teilnehmerbegrenzung

Leistungen in Bezug auf das Modul

PNL 557111 - Vorlesung und Übung (unbenotet)

INF-DS-C3 - Data Science and Business Analytics

Für dieses Modul werden aktuell keine Lehrveranstaltungen angeboten

INF-DS-C4 - Applied Data Science

86433 DF - Multi-agent path finding

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	VU	Mo	14:00 - 16:00	wöch.	Online.Veranstalt	19.04.2021	Prof. Dr. Torsten Schaub, Etienne Tignon

Leistungen in Bezug auf das Modul

PNL 557132 - Übung oder Projekt (unbenotet)

88620 DF - Applications of Deep Learning

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	DF	N.N.	N.N.	Block	N.N.	N.N.	Prof. Dr. Tobias Scheffer
	Raum und Zeit nach Absprache						

Kommentar

Zulassung nach Absprache

Leistungen in Bezug auf das Modul

PNL 557132 - Übung oder Projekt (unbenotet)

Abkürzungen entnehmen Sie bitte Seite 5

88751 S - Practical Applications of Deep Learning

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	V	N.N.	N.N.	wöch.	N.N.	N.N.	Dr. rer. nat. Haojin Yang

Kommentar

Angaben zum Lehrinhalt in der Beschreibung aufrufbar unter https://hpi.de/studium/lehrveranstaltungen.html

Voraussetzung

Voraussetzungen werden in den Lehrinhaltsbeschreibungen unter https://hpi.de/studium/lehrveranstaltungen.html benannt.

Bemerkung

Unter https://hpi.de/studium/lehrveranstaltungen.html sind folgende Angaben aufrufbar:

- Raum und Zeit
- Lehrinhalt und Leistungserfassung
- Teilnehmerbegrenzung

Leistungen in Bezug auf das Modul

PNL 557132 - Übung oder Projekt (unbenotet)

88993 VU - Introduction to theoretical systems biology

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	U	Mo	14:15 - 15:45	wöch.	Online.Veranstalt	12.04.2021	Daniel Seeler
1	V	Mi	08:15 - 09:45	wöch.	Online.Veranstalt	14.04.2021	Prof. Dr. Wilhelm Huisinga

Kommentar

The course is an online course, most of the times asynchronous. All relevant course material is provided on Moodle. The hands-on exercises are online in an synchronouos format.

Literatur

A list of references is provided via Moodle.

Leistungsnachweis

To successfully complete the course, you will have to pass a written exam (90min). Importantly, you will have to register via PULS to be able to take the exam. Mind the corresponding deadlines. No registration, no exam, no exception.

Bemerkung

There is a Moodle page for this course (--> LINK); please register (pw: -please send an email to huisinga@uni-potsdam.de). All further information (slidecasts, PDF of slides, Zoom dial-in details, weekly assignments etc) will be provided on the Moodle page.

Lerninhalte

Modelling, simulation and analysis of biochemical reaction networks; deterministic and stochastic reaction kinetics; methods of model redution; network motifs

Kurzkommentar

The course will start with an introductory meeting on Wednesday, 14 April at 8:15 via zoom. The dial-in details can be found on the Moodle page of the course (see below).

Zielgruppe
MSc Bioinformatics, MSc Mathematics; MSc Data Science; MSc Computational Science; MSc Physik

Leistungen in Bezug auf das Modul	
PNL	557132 - Übung oder Projekt (unbenotet)

Elective Modules - Research Modules

INF-DS-RMA - Research Module A

86375 PJ - Research Module A

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	PJ	N.N.	N.N.	Block	N.N.	N.N.	Prof. Dr. Tobias Scheffer

Leistungen in Bezug auf das Modul	
SL	557141 - Vorlesung oder Seminar (unbenotet)
SL	557142 - Übung oder Projekt (unbenotet)

86429 PJ - Intelligent Logistics Technology

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	PJ	Mo	12:00 - 14:00	wöch.	Online.Veranstalt	26.04.2021	Prof. Dr. Torsten Schaub, Javier Romero Davila, Francois Laferriere, Etienne Tignon

Links:	
moodle	https://moodle2.uni-potsdam.de/course/view.php?id=23470

Kommentar

In this project, student teams build software systems addressing problems in warehouse logistics using problem solvers for answer set programming

Voraussetzung

Knowledge in answer set programming (and python).

Leistungsnachweis

Implementation, evaluation, presentation, and documentation.

Bemerkung

Offline communication is conducted primarily via the associated moodle page.

Announcements are also made through the email list of registered students in puls.

Questions can be address to krprojects@lists.cs.uni-potsdam.de .

Lerninhalte

On individual basis.

Kurzkommentar

Joint kick-off event for all projects of the professorship Knowledge Processing and Information Systems as announced in course catalog of the department and the associated moodle page.

Zielgruppe

Students interested in applying AI-techniques in logistics

Leistungen in Bezug auf das Modul

SL 557142 - Übung oder Projekt (unbenotet)

86431 PJ - Declarative Problem Solving

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	PJ	Mo	12:00 - 14:00	wöch.	Online.Veranstalt	26.04.2021	Francois Laferriere, Javier Romero Davila, Prof. Dr. Torsten Schaub

Links:

moodle https://moodle2.uni-potsdam.de/course/view.php?id=23470

Kommentar

In this project, student teams build software systems whose core consists of problem solvers for combinatorial (optimization) problems, like answer set programming

Voraussetzung

Good knowledge in ASP and/or SAT.

Leistungsnachweis

Implementation, evaluation, presentation, and documentation

Bemerkung

Offline communication is conducted primarily via the associated moodle page.

Announcements are also made through the email list of registered students in puls.

Questions can be address to krprojects@lists.cs.uni-potsdam.de. krprojects@lists.cs.uni-potsdam.de

Lerninhalte

On individual basis

Kurzkommentar

Joint kick-off event for all projects of the professorship Knowledge Processing and Information Systems as announced in course catalogue of the department and the associated moodle page

Zielgruppe

MSc students who want to deepen their practical knowledge in declarative modelling techniques and their application

Leistungen in Bezug auf das Modul

SL 557142 - Übung oder Projekt (unbenotet)

88335 S - Social Media Research Project

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	PJ	Fr	12:00 - 16:00	wöch.	Online.Veranstalt	16.04.2021	Julio Brandl, Prof. Dr. Hanna Krasnova, Katharina Baum
	individual appointments						

Voraussetzung

We highly recommend to complete "Social Media Research" or "Wissenschaftliche Methodik der Wirtschaftsinformatik" courses at our chair before choosing this seminar/project.

Literatur

- Collis, J., Hussey, R. (2013). Business research: A practical guide for undergraduate and postgraduate students. Palgrave Macmillan.
- DeVellis, R. F. Scale Development: Theory and Applications (Vol. 26), Sage Publications, 2011.
- Pedhazur, E. J., and Schmelkin, L. P. Measurement, Design, and Analysis: An Integrated Approach, Psychology Press, 2013.
- Recker J. Scientific Research in Information Systems: A Beginner's Guide, Springer, 2012.

Supplementary Readings: Additional articles and resources will be provided on a need-to basis via Moodle.

Leistungsnachweis

The course performance will be evaluated based on:

- Slam Presentation, Midterm Presentation, Final Presentation

- Seminar Pape r

Lerninhalte

This class will start on Friday 16.04.2021, at 12:15 via ZOOM

A number of social platforms have gained popularity in recent years (e.g. Facebook, Instagram, Airbnb, etc). Their breath-taking success manifests itself in millions of user subscriptions, significant time spent on the site, and a steep growth of conducted transactions. Facebook alone has over 2.32 billion monthly active users. By rapidly changing the way we communicate, inform ourselves, spend our free time, learn and buy, these platforms transform the society we live in today. Facing this wave of new developments, many keep asking about the meaning and long-term consequences of these changes.

This seminar/project focuses on conveying four important research methodologies:

- Systematic Literature Review
- Qualitative Data Analysis, e.g. interviews, focus groups
- Quantitative Data Analysis, e.g. survey
- Big Data Analysis

Possible topics include, but are not limited to:

- Cognitive biases and social media use
- Social media and well-being
- Open data and the willingness to share
- Digitization of health: Mental disorders
- Digital working culture & digital collaboration
- How does Instagram use influence users self-awareness?
- Work-home / home-office during COVID-19
- Elderly & ICT
- The body in social media
- Digital resilience & digital coping strategies
- How did the sentiment regarding the AstraZeneca vaccines evolve over time?
- Vaccine myths: What kind of myths regarding vaccines exist?
- Moral foundations of anti-vaccine discussions on Twitter
- Enterprise Social Networks and Burnout
- Smartphone Use and Child Well-Being
- Narcissism and Social Media Use
- Active Use of Social Media and Well-Being Outcomes
- Measuring Self-Disclosure
- Self-Awareness on Social Media

Students will be asked to get a deep understanding of the topic of their choice, present their findings by giving a presentation and write a seminar paper. The seminar will be held in English.

Leistungen in Bezug auf das Modul

SL	557141 - Vorlesung oder Seminar (unbenotet)

88816 S - Social Network Analysis Project

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	S	Do	10:00 - 14:00	wöch.	Online.Veranstalt	15.04.2021	Dr. Annika Baumann
	individual appointments						

Voraussetzung

None

Students will be required within the project to create and analyze a (social) network on their own. Some basic programming skills are helpful but are not necessary as students can chose which tool(s) to use.

Literatur

Barabási, A. L. (2013). Network science. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences* , *371* (1987), 20120375.

Leistungsnachweis

Presentations & Project Paper

Bemerkung

All sessions of the project will be held online.

More information (including the Zoom details for the sessions) can be found on Moodle .

Lerninhalte

In our intertwined world, everyone and everything is connected with each other. A theory, commonly known as "Six Degrees of Separation" or "Small World Phenomenon", postulates that every human being in this world is connected to any other person through only very few others. An experiment performed by the psychologist Stanley Milgram in 1967 was able to show that this phenomenon seems to be true indeed. Nowadays, platforms such as Social Media do make it even easier to investigate the underlying social structures with large-scale datasets being readily available. However, networks do not only form the underlying basis in the case of Social Media platforms but they are almost everywhere we look.
In the **Project "Social Network Analysis"** students will get to learn some basic underlying graph theory, work with scientific papers using networks to investigate research questions, and work on a network-based project on their own.

Leistungen in Bezug auf das Modul

SL 557141 - Vorlesung oder Seminar (unbenotet)

88919 PJ - Digital Business and Consumer Behavior Projekt

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	PJ	Mi	14:00 - 18:00	wöch.	Online.Veranstalt	14.04.2021	Dr. Antonia Köster
	individual appointments						

Kommentar

Dear students,

the **seminar sessions will take place online.**

The first class will take place on **Wednesday, 14.04, at 14:15** in Zoom.

https://uni-potsdam.zoom.us/j/9706959534

Meeting ID: 970 695 9534

Passcode: 67357865

In the Moodle course, you can find more details on how the seminar will be organized and a description of the topics we will offer.

Please find the Moodle course here

All the course materials are distributed via Moodle:

Course: DigiBusiness21 (Seminar & Project)

Enrollment key: DigiBusinessSS21

Voraussetzung

We highly recommend completing "Social Media Research" or "Wissenschaftliche Methodik der Wirtschaftsinformatik" courses at our chair before choosing this seminar/project.

Leistungsnachweis

The course performance will be evaluated based on:

- Exposé, i.e. 1-2 Pages Research Proposal (Deadline May)

- (Online) Presentations

- Seminar Pape r (Deadline August)

Lerninhalte

Firstly, this seminar aims to understand what effects the social media business models are exerting on wider society.
The second objective is to examine how the use of these platforms can also have an impact on the user's online investment behavior.

Possible topics include, but are not limited to

- **The Impact of Online Platforms on User's Economic Inequality Beliefs**
- **Analyzing App Business Models**
- **Analyzing Reddit Forum Data "Wallstreetbets"**
- **Social Media Consumption and Financial Investments**
- **Social Media Use and Overview on Societal Consequences**

Students will be asked to get a deep understanding of the topic of their choice, present their findings by giving a presentation and write a seminar paper. The seminar will be held in English. Students can work in groups.

Tentative Schedule

1st Session| April, 14| Kick-Off (Zoom)

2nd Session: Academic Coordination

3rd Session|May, 12| Exposé Submission

4th - 5th Session: Academic Coordination (optional)

6th Session|June, 2| Mid-term presentation (Zoom)

7th -11th Session: Academic Coordination (optional)

12th Session|July, 7| Final presentation (Zoom)

August, 4| Report Submission

Leistungen in Bezug auf das Modul

SL	557141 - Vorlesung oder Seminar (unbenotet)

INF-DS-RMB - Research Module B

86374 PJ - Research Module B

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	PJ	N.N.	N.N.	Block	N.N.	N.N.	Prof. Dr. Tobias Scheffer

Leistungen in Bezug auf das Modul

SL	557151 - Vorlesung oder Seminar (unbenotet)
SL	557152 - Übung oder Projekt (unbenotet)

88335 S - Social Media Research Project

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	PJ	Fr	12:00 - 16:00	wöch.	Online.Veranstalt	16.04.2021	Julio Brandl, Prof. Dr. Hanna Krasnova, Katharina Baum
	individual appointments						

Voraussetzung

We highly recommend to complete "Social Media Research" or "Wissenschaftliche Methodik der Wirtschaftsinformatik" courses at our chair before choosing this seminar/project.

Abkürzungen entnehmen Sie bitte Seite 5

Literatur

- Collis, J., Hussey, R. (2013). Business research: A practical guide for undergraduate and postgraduate students. Palgrave Macmillan.
- DeVellis, R. F. Scale Development: Theory and Applications (Vol. 26), Sage Publications, 2011.
- Pedhazur, E. J., and Schmelkin, L. P. Measurement, Design, and Analysis: An Integrated Approach, Psychology Press, 2013.
- Recker J. Scientific Research in Information Systems: A Beginner's Guide, Springer, 2012.

Supplementary Readings: Additional articles and resources will be provided on a need-to basis via Moodle.

Leistungsnachweis

The course performance will be evaluated based on:

- Slam Presentation, Midterm Presentation, Final Presentation

- Seminar Pape r

Lerninhalte

This class will start on Friday 16.04.2021, at 12:15 via ZOOM

A number of social platforms have gained popularity in recent years (e.g. Facebook, Instagram, Airbnb, etc). Their breath-taking success manifests itself in millions of user subscriptions, significant time spent on the site, and a steep growth of conducted transactions. Facebook alone has over 2.32 billion monthly active users. By rapidly changing the way we communicate, inform ourselves, spend our free time, learn and buy, these platforms transform the society we live in today. Facing this wave of new developments, many keep asking about the meaning and long-term consequences of these changes.

This seminar/project focuses on conveying four important research methodologies:

- Systematic Literature Review
- Qualitative Data Analysis, e.g. interviews, focus groups
- Quantitative Data Analysis, e.g. survey
- Big Data Analysis

Possible topics include, but are not limited to:

- Cognitive biases and social media use
- Social media and well-being
- Open data and the willingness to share
- Digitization of health: Mental disorders
- Digital working culture & digital collaboration
- How does Instagram use influence users self-awareness?
- Work-home / home-office during COVID-19
- Elderly & ICT
- The body in social media
- Digital resilience & digital coping strategies
- How did the sentiment regarding the AstraZeneca vaccines evolve over time?
- Vaccine myths: What kind of myths regarding vaccines exist?
- Moral foundations of anti-vaccine discussions on Twitter
- Enterprise Social Networks and Burnout
- Smartphone Use and Child Well-Being
- Narcissism and Social Media Use
- Active Use of Social Media and Well-Being Outcomes
- Measuring Self-Disclosure
- Self-Awareness on Social Media

Students will be asked to get a deep understanding of the topic of their choice, present their findings by giving a presentation and write a seminar paper. The seminar will be held in English.

Leistungen in Bezug auf das Modul

SL 557151 - Vorlesung oder Seminar (unbenotet)

88816 S - Social Network Analysis Project

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	S	Do	10:00 - 14:00	wöch.	Online.Veranstalt	15.04.2021	Dr. Annika Baumann
	individual appointments						

Voraussetzung

None

Students will be required within the project to create and analyze a (social) network on their own. Some basic programming skills are helpful but are not necessary as students can chose which tool(s) to use.

Literatur

Barabási, A. L. (2013). Network science. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences* , *371* (1987), 20120375.

Leistungsnachweis

Presentations & Project Paper

Bemerkung

All sessions of the project will be held online.

More information (including the Zoom details for the sessions) can be found on Moodle .

Lerninhalte

In our intertwined world, everyone and everything is connected with each other. A theory, commonly known as "Six Degrees of Separation" or "Small World Phenomenon", postulates that every human being in this world is connected to any other person through only very few others. An experiment performed by the psychologist Stanley Milgram in 1967 was able to show that this phenomenon seems to be true indeed. Nowadays, platforms such as Social Media do make it even easier to investigate the underlying social structures with large-scale datasets being readily available. However, networks do not only form the underlying basis in the case of Social Media platforms but they are almost everywhere we look.
In the **Project "Social Network Analysis"** students will get to learn some basic underlying graph theory, work with scientific papers using networks to investigate research questions, and work on a network-based project on their own.

Leistungen in Bezug auf das Modul

SL	557151 - Vorlesung oder Seminar (unbenotet)

88919 PJ - Digital Business and Consumer Behavior Projekt

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	PJ	Mi	14:00 - 18:00	wöch.	Online.Veranstalt	14.04.2021	Dr. Antonia Köster
	individual appointments						

Kommentar

Dear students,

the **seminar sessions will take place online.**

The first class will take place on **Wednesday, 14.04, at 14:15** in Zoom.

https://uni-potsdam.zoom.us/j/9706959534

Meeting ID: 970 695 9534

Passcode: 67357865

In the Moodle course, you can find more details on how the seminar will be organized and a description of the topics we will offer.

Please find the Moodle course here

All the course materials are distributed via Moodle:

Course: DigiBusiness21 (Seminar & Project)

Enrollment key: DigiBusinessSS21

Voraussetzung

We highly recommend completing "Social Media Research" or "Wissenschaftliche Methodik der Wirtschaftsinformatik" courses at our chair before choosing this seminar/project.

Leistungsnachweis

The course performance will be evaluated based on:

- Exposé, i.e. 1-2 Pages Research Proposal (Deadline May)

- (Online) Presentations

- Seminar Pape r (Deadline August)

Lerninhalte

Firstly, this seminar aims to understand what effects the social media business models are exerting on wider society.
The second objective is to examine how the use of these platforms can also have an impact on the user's online investment behavior.

Possible topics include, but are not limited to

- **The Impact of Online Platforms on User's Economic Inequality Beliefs**
- **Analyzing App Business Models**
- **Analyzing Reddit Forum Data "Wallstreetbets"**
- **Social Media Consumption and Financial Investments**
- **Social Media Use and Overview on Societal Consequences**

Students will be asked to get a deep understanding of the topic of their choice, present their findings by giving a presentation and write a seminar paper. The seminar will be held in English. Students can work in groups.

Tentative Schedule

1st Session| April, 14| Kick-Off (Zoom)

2nd Session: Academic Coordination

3rd Session|May, 12| Exposé Submission

4th - 5th Session: Academic Coordination (optional)

6th Session|June, 2| Mid-term presentation (Zoom)

7th -11th Session: Academic Coordination (optional)

12th Session|July, 7| Final presentation (Zoom)

August, 4| Report Submission

Leistungen in Bezug auf das Modul

SL	557151 - Vorlesung oder Seminar (unbenotet)

Elective Modules - Advanced Module

MAT-DSAM2A - Advanced Statistical Data Analysis A

Für dieses Modul werden aktuell keine Lehrveranstaltungen angeboten

MAT-DSAM2B - Advanced Statistical Data Analysis B

86254 VS - Bayesian statistical inference 2

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	VS	Fr	10:00 - 12:00	wöch.	Online.Veranstalt	16.04.2021	Prof. Dr. Shravan Vasishth

Kommentar

To take part in this course, please enroll over moodle:

https://moodle2.uni-potsdam.de/course/view.php?id=28661

Enrollment key: SU2021

Leistungen in Bezug auf das Modul

PNL	551271 - Vorlesung und Übung (unbenotet)

Abkürzungen entnehmen Sie bitte Seite 5

MAT-DSAM3A - Advanced Data Assimilation and Modeling A

88994 VU - Reinforcement Learning

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	V	Di	12:15 - 13:45	wöch.	Online.Veranstalt	13.04.2021	Dr. Jana de Wiljes
1	V	Mi	10:15 - 11:45	wöch.	Online.Veranstalt	14.04.2021	Dr. Jana de Wiljes
1	U	Mi	12:15 - 13:45	wöch.	Online.Veranstalt	14.04.2021	Dr. Jana de Wiljes

Leistungen in Bezug auf das Modul

PNL 551282 - Übung (unbenotet)

MAT-DSAM3B - Advanced Data Assimilation and Modeling B

88993 VU - Introduction to theoretical systems biology

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	U	Mo	14:15 - 15:45	wöch.	Online.Veranstalt	12.04.2021	Daniel Seeler
1	V	Mi	08:15 - 09:45	wöch.	Online.Veranstalt	14.04.2021	Prof. Dr. Wilhelm Huisinga

Kommentar

The course is an online course, most of the times asynchronous. All relevant course material is provided on Moodle. The hands-on exercises are online in an synchronouos format.

Literatur

A list of references is provided via Moodle.

Leistungsnachweis

To successfully complete the course, you will have to pass a written exam (90min). Importantly, you will have to register via PULS to be able to take the exam. Mind the corresponding deadlines. No registration, no exam, no exception.

Bemerkung

There is a Moodle page for this course (--> LINK); please register (pw: -please send an email to huisinga@uni-potsdam.de). All further information (slidecasts, PDF of slides, Zoom dial-in details, weekly assignments etc) will be provided on the Moodle page.

Lerninhalte

Modelling, simulation and analysis of biochemical reaction networks; deterministic and stochastic reaction kinetics; methods of model redution; network motifs

Kurzkommentar

The course will start with an introductory meeting on Wednesday, 14 April at 8:15 via zoom. The dial-in details can be found on the Moodle page of the course (see below).

Zielgruppe

MSc Bioinformatics, MSc Mathematics; MSc Data Science; MSc Computational Science; MSc Physik

Leistungen in Bezug auf das Modul

PNL 551291 - Vorlesung und Übung (unbenotet)

88994 VU - Reinforcement Learning

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	V	Di	12:15 - 13:45	wöch.	Online.Veranstalt	13.04.2021	Dr. Jana de Wiljes
1	V	Mi	10:15 - 11:45	wöch.	Online.Veranstalt	14.04.2021	Dr. Jana de Wiljes
1	U	Mi	12:15 - 13:45	wöch.	Online.Veranstalt	14.04.2021	Dr. Jana de Wiljes

Leistungen in Bezug auf das Modul

PNL 551291 - Vorlesung und Übung (unbenotet)

MAT-DSAM8A - Mathematical Foundations of Data Science A

Für dieses Modul werden aktuell keine Lehrveranstaltungen angeboten

MAT-DSAM8B - Mathematical Foundations of Data Science B

86254 VS - Bayesian statistical inference 2

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	VS	Fr	10:00 - 12:00	wöch.	Online.Veranstalt	16.04.2021	Prof. Dr. Shravan Vasishth

Kommentar

To take part in this course, please enroll over moodle:

https://moodle2.uni-potsdam.de/course/view.php?id=28661

Enrollment key: SU2021

Leistungen in Bezug auf das Modul

PNL 551322 - Vorlesung und Übung (unbenotet)

BM3 - Advanced Problem Solving Techniques

88616 KU - Advanced Problem Solving Techniques

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	DF	N.N.	N.N.	Block	N.N.	N.N.	Javier Romero Davila, Francois Laferriere, Prof. Dr. Torsten Schaub, Etienne Tignon
	Zulassung, Raum und Zeit nach Absprache						

Kommentar

Zulassung nach Absprache

Medium practical assignment accompanying the course, and preferably accomplished in a small group of preferably two persons

Leistungsnachweis

Successfully accomplished medium assignment, including report and presentation

Leistungen in Bezug auf das Modul

PNL 555914 - Projekt (unbenotet)

88617 DF - Advanced Problem Solving Techniques

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	DF	N.N.	N.N.	Block	N.N.	N.N.	Javier Romero Davila, Francois Laferriere, Prof. Dr. Torsten Schaub, Etienne Tignon

Zulassung, Raum und Zeit nach Absprache

Kommentar

Zulassung nach Absprache

Leistungsnachweis

Successfully accomplished assignments

Leistungen in Bezug auf das Modul

PNL 555913 - Praktikum (unbenotet)

INF-DSAM1A - Advanced Machine Learning A

Für dieses Modul werden aktuell keine Lehrveranstaltungen angeboten

INF-DSAM1B - Advanced Machine Learning B

85863 DF - Deep Learning for NLP

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	DF	Di	16:00 - 18:00	wöch.	Online.Veranstalt	13.04.2021	Dr. Sharid Indhira Loáiciga Sánchez

Leistungen in Bezug auf das Modul

PNL 557172 - Seminar (unbenotet)

INF-DSAM4A - Advanced Infrastructures and Software Engineering A

86425 VU - Principles of Data- and Knowledge-Base Systems

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
Alle	V	Fr	14:00 - 16:00	wöch.	Online.Veranstalt	16.04.2021	Prof. Dr. Torsten Schaub
1	U	Di	16:00 - 18:00	wöch.	Online.Veranstalt	20.04.2021	Francois Laferriere
2	U	Do	14:00 - 16:00	wöch.	Online.Veranstalt	22.04.2021	Francois Laferriere
3	U	Mi	12:00 - 14:00	wöch.	Online.Veranstalt	21.04.2021	Ilona Petrenko

Für Lehramtsstudierende.

Links:

moodle	https://moodle2.uni-potsdam.de/enrol/index.php?id=22093

Literatur

Principles of Database & Knowledge-Base Systems by Jeffrey D. Ullman W. H. Freeman & Co. New York, NY, USA

Leistungen in Bezug auf das Modul

PNL 557181 - Vorlesung und Übung (unbenotet)

86642 VU - Software Engineering II

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
Alle	V	Mo	12:00 - 14:00	wöch.	Online.Veranstalt	19.04.2021	Dr.-Ing. Sandro Schulze
1	U	Do	14:00 - 16:00	wöch.	Online.Veranstalt	22.04.2021	Dr.-Ing. Sandro Schulze
2	U	Fr	08:00 - 10:00	wöch.	Online.Veranstalt	23.04.2021	Dr.-Ing. Sandro Schulze

Links:

Moodle-Kurs - bitte anmelden!	https://moodle2.uni-potsdam.de/course/view.php?id=28053

Kommentar

Die Veranstaltungen beginnen erst in der zweiten Vorlesungswoche ab 19. April.

Leistungen in Bezug auf das Modul	
PNL	557181 - Vorlesung und Übung (unbenotet)

INF-DSAM4B - Advanced Infrastructures and Software Engineering B

86642 VU - Software Engineering II

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
Alle	V	Mo	12:00 - 14:00	wöch.	Online.Veranstalt	19.04.2021	Dr.-Ing. Sandro Schulze
1	U	Do	14:00 - 16:00	wöch.	Online.Veranstalt	22.04.2021	Dr.-Ing. Sandro Schulze
2	U	Fr	08:00 - 10:00	wöch.	Online.Veranstalt	23.04.2021	Dr.-Ing. Sandro Schulze

Links:	
Moodle-Kurs - bitte anmelden!	https://moodle2.uni-potsdam.de/course/view.php?id=28053

Kommentar

Die Veranstaltungen beginnen erst in der zweiten Vorlesungswoche ab 19. April.

Leistungen in Bezug auf das Modul	
PNL	557192 - Übung oder Projekt (unbenotet)

89059 VU - Natural Language Processing

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	VU	N.N.	N.N.	wöch.	N.N.	N.N.	N.N.

Leistungen in Bezug auf das Modul	
PNL	557192 - Übung oder Projekt (unbenotet)

INF-DSAM5A - Advanced Business Analytics A

88336 S - Social Media and Business Analytics II

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.

Voraussetzung

We highly recommend to complete "Social Media Research" or "Wissenschaftliche Methodik der Wirtschaftsinformatik" courses at our chair before choosing this seminar/project.

Literatur

- Collis, J., Hussey, R. (2013). Business research: A practical guide for undergraduate and postgraduate students. Palgrave Macmillan.
- DeVellis, R. F. Scale Development: Theory and Applications (Vol. 26), Sage Publications, 2011.
- Pedhazur, E. J., and Schmelkin, L. P. Measurement, Design, and Analysis: An Integrated Approach, Psychology Press, 2013.
- Recker J. Scientific Research in Information Systems: A Beginner's Guide, Springer, 2012.
Supplementary Readings: Additional articles and resources will be provided on a need-to basis via Moodle.

Leistungsnachweis

The course performance will be evaluated based on:

- Exposé, i.e. 1-2 Pages Research Proposal (Deadline May, 15)

- (Online) Presentations

- Seminar Pape r (Deadline August, 14)

Lerninhalte

A number of social platforms have gained popularity in recent years (e.g. Facebook, Instagram, Airbnb, etc). Their breath-taking success manifests itself in millions of user subscriptions, significant time spent on the site, and a steep growth of conducted transactions. Facebook alone has over 2.32 billion monthly active users. By rapidly changing the way we communicate, inform ourselves, spend our free time, learn and buy, these platforms transform the society we live in today. Facing this wave of new developments, many keep asking about the meaning and long-term consequences of these changes.

Possible topics include, but are not limited to:

- AI for Control: Perceived Fairness of Consumer Scoring
- Automation and Trust Repair Strategies
- Chatbots and Service Quality
- Corona Emotions and Effects on Respondent Behavior
- Economic Inequality and Social Media Use
- Goal-Setting and Behavior Change
- Physician Rating Platforms
- Resentment Towards the Rich
- Social Media And Company's Stock Prices: Walking Hand-In-Hand Or On One's Own?
- Twitter Data And Financial Markets Movements
- Tweets That Beat The Street? A Systematic Literature Review On Whether Tweets Can Predict Stock Behavior
- Digital Discrimination: Investigating The Xenophobic Behavior (incl. Hate Speech) On The Web During The Outbreak Of The Covid-19 Pandemic.
- Fighting Misinformation On Social Media: Empirical Evidence
- Tik Tok On The Clock, But The Party Don't Stop: Exploring The Motives Of Tiktok Use

Students will be asked to get a deep understanding of the topic of their choice, present their findings by giving a presentation and write a seminar paper. The seminar will be held in English.

Leistungen in Bezug auf das Modul

PNL	557202 - Seminar 1 (unbenotet)
PNL	557203 - Seminar 2 (unbenotet)

88815 S - Social Network Analysis Seminar

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	S	Do	10:00 - 12:00	wöch.	Online.Veranstalt	15.04.2021	Dr. Annika Baumann
	individual appointments						

Voraussetzung

None

Students will be required within the seminar to create and analyze a (social) network on their own. Some basic programming skills are helpful but are not necessary as students can chose which tool(s) to use.

Literatur

Barabási, A. L. (2013). Network science. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences* , *371* (1987), 20120375.

Leistungsnachweis

Presentations & Seminar Paper

Bemerkung

All sessions of the seminar will be held online.

More information (including the Zoom details for the sessions) can be found on Moodle .

Lerninhalte

In our intertwined world, everyone and everything is connected with each other. A theory, commonly known as "Six Degrees of Separation" or "Small World Phenomenon", postulates that every human being in this world is connected to any other person through only very few others. An experiment performed by the psychologist Stanley Milgram in 1967 was able to show that this phenomenon seems to be true indeed. Nowadays, platforms such as Social Media do make it even easier to investigate the underlying social structures with large-scale datasets being readily available. However, networks do not only form the underlying basis in the case of Social Media platforms but they are almost everywhere we look.
In the **Seminar "Social Network Analysis"** students will get to learn some basic underlying graph theory, work with scientific papers using networks to investigate research questions, and work on a network-based project on their own.

Leistungen in Bezug auf das Modul

PNL	557202 - Seminar 1 (unbenotet)
PNL	557203 - Seminar 2 (unbenotet)

88817 S - Social Media Research Seminar 2

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	S	N.N.	N.N.	wöch.	N.N.	N.N.	Prof. Dr. Hanna Krasnova

Bemerkung

Studierende des Masters Data Science (Prüfungsversion ab WiSe 2018/19) müssen zum erfolgreichen Abschließen des Moduls INF-DSAM5A

auch die Veranstaltung 'Social Media Research Seminar' belegen.

Leistungen in Bezug auf das Modul

PNL	557202 - Seminar 1 (unbenotet)
PNL	557203 - Seminar 2 (unbenotet)

88918 S - Digital Business and Consumer Behavior

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	S	Mi	14:00 - 18:00	wöch.	Online.Veranstalt	14.04.2021	Dr. Antonia Köster
	individual appointments						

Kommentar

Dear students,

the **seminar sessions will take place online.**

The first class will take place on **Wednesday, 14.04, at 14:15** in Zoom.

https://uni-potsdam.zoom.us/j/9706959534

Meeting ID: 970 695 9534

Passcode: 67357865

In the Moodle course, you can find more details on how the seminar will be organized and a description of the topics we will offer.

Please find the Moodle course here

All the course materials are distributed via Moodle:

Course: DigiBusiness21 (Seminar & Project)

Enrollment key: DigiBusinessSS21

Voraussetzung

We highly recommend completing "Social Media Research" or "Wissenschaftliche Methodik der Wirtschaftsinformatik" courses at our chair before choosing this seminar/project.

Leistungsnachweis

The course performance will be evaluated based on:

- Exposé, i.e. 1-2 Pages Research Proposal (Deadline May)

- (Online) Presentations

- Seminar Pape r (Deadline August)

Lerninhalte

This seminar aims to analyze social media consumption as well as financial investments and economic inequality.
The objective is to examine how online platforms can have an impact on the user's behavior.

Possible topics include, but are not limited to:

- **The Impact of Online Platforms on User's Economic Inequality Beliefs**
- **Analyzing App Business Models**
- **Analyzing Reddit Forum Data "Wallstreetbets"**
- **Social Media Consumption and Financial Investments**
- **Social Media Use and Overview on Societal Consequences**

Students will be asked to get a deep understanding of the topic of their choice, present their findings by giving a presentation and write a seminar paper. The seminar will be held in English. Students can work in groups.

Tentative Schedule

1st Session| April, 14| Kick-Off (Zoom)

2nd Session: Academic Coordination

3rd Session|May, 12| Exposé Submission

4th - 5th Session: Academic Coordination (optional)

6th Session|June, 2| Mid-term presentation (Zoom)

7th -11th Session: Academic Coordination (optional)

12th Session|July, 7| Final presentation (Zoom)

August, 4| Report Submission

Leistungen in Bezug auf das Modul

PNL	557202 - Seminar 1 (unbenotet)
PNL	557203 - Seminar 2 (unbenotet)

88920 S - Emerging Information Systems Topics in the Era of Pandemics

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	S	Mi	10:00 - 12:00	wöch.	Online.Veranstalt	14.04.2021	Safa'a AbuJarour

Kommentar

- This course will take place via Zoom virtual meetings
  - https://uni-potsdam.zoom.us/j/62169978106
  - Passcode: 61027879
- After the first session, the link to the course in Moodle will be shared with students

Leistungsnachweis

- Short Expose (1-2 pages)
- Bi-Weekly Short Presentation (5 minutes)
- Final presentation (15-20 minutes) at the end of the semester
- Seminar Paper (10-15 pages, depending on the number of students in the group)

Lerninhalte

Description :

The world has faced an unprecedented catastrophe in the COVID-19 pandemic. The unusual circumstances created by COVID-19's rapid spread provide a unique opportunity to study the role of Information Systems and Technology in supporting people through this pandemic and beyond. This seminar considers topics related to the pandemic's impacts on jobs and work (for both employers and employees), education and educational institutions (including learners and educators), family and home life (including life changes for adults and children), and global society.

Students are required to write a seminar paper following research methods, including literature reviews or studies employing qualitative, quantitative, or mixed methods.

Examples of topics are:

- The role of technology in alleviating the current pandemic
- Using ICT to foster learning, working, and social activities
- Social opportunities and challenges in the era of COVID-19 (e.g., social isolation, well-being, and work-life boundaries and conflicts)
- Consequences of COVID-19 on work, education, or society
- Working from home during lockdowns
- Adjusting to the "new normal"
- Best practices in education, work, and social contexts

Zielgruppe

- Open to all students from different disciplines, also for Erasmus students

Leistungen in Bezug auf das Modul

PNL	557202 - Seminar 1 (unbenotet)
PNL	557203 - Seminar 2 (unbenotet)

88921 S - Social Media Research Seminar

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	S	Fr	12:00 - 16:00	wöch.	Online.Veranstalt	16.04.2021	Prof. Dr. Hanna Krasnova, Katharina Baum, Julio Brandl
	individual appointments						

Voraussetzung

We highly recommend to complete "Social Media Research" or "Wissenschaftliche Methodik der Wirtschaftsinformatik" courses at our chair before choosing this seminar/project.

Literatur

- Collis, J., Hussey, R. (2013). Business research: A practical guide for undergraduate and postgraduate students. Palgrave Macmillan.
- DeVellis, R. F. Scale Development: Theory and Applications (Vol. 26), Sage Publications, 2011.
- Pedhazur, E. J., and Schmelkin, L. P. Measurement, Design, and Analysis: An Integrated Approach, Psychology Press, 2013.
- Recker J. Scientific Research in Information Systems: A Beginner's Guide, Springer, 2012.
Supplementary Readings: Additional articles and resources will be provided on a need-to basis via Moodle.

Leistungsnachweis

The course performance will be evaluated based on:

- Slam Presentation, Midterm Presentation, Final Presentation

- Seminar Pape r

Lerninhalte

This class will start on Friday 16.04.2021, at 12:15 via ZOOM

A number of social platforms have gained popularity in recent years (e.g. Facebook, Instagram, Airbnb, etc). Their breath-taking success manifests itself in millions of user subscriptions, significant time spent on the site, and a steep growth of conducted transactions. Facebook alone has over 2.32 billion monthly active users. By rapidly changing the way we communicate, inform ourselves, spend our free time, learn and buy, these platforms transform the society we live in today. Facing this wave of new developments, many keep asking about the meaning and long-term consequences of these changes.

This seminar/project focuses on conveying four important research methodologies:

- Systematic Literature Review
- Qualitative Data Analysis, e.g. interviews, focus groups
- Quantitative Data Analysis, e.g. survey
- Big Data Analysis

Possible topics include, but are not limited to:

- Cognitive biases and social media use
- Social media and well-being
- Open data and the willingness to share
- Digitization of health: Mental disorders
- Digital working culture & digital collaboration
- How does Instagram use influence users self-awareness?
- Work-home / home-office during COVID-19
- Elderly & ICT
- The body in social media
- Digital resilience & digital coping strategies
- How did the sentiment regarding the AstraZeneca vaccines evolve over time?
- Vaccine myths: What kind of myths regarding vaccines exist?
- Moral foundations of anti-vaccine discussions on Twitter
- Enterprise Social Networks and Burnout
- Smartphone Use and Child Well-Being
- Narcissism and Social Media Use
- Active Use of Social Media and Well-Being Outcomes
- Measuring Self-Disclosure
- Self-Awareness on Social Media

Students will be asked to get a deep understanding of the topic of their choice, present their findings by giving a presentation and write a seminar paper. The seminar will be held in English.

Leistungen in Bezug auf das Modul

PNL	557202 - Seminar 1 (unbenotet)
PNL	557203 - Seminar 2 (unbenotet)

INF-DSAM5B - Advanced Business Analytics B

88336 S - Social Media and Business Analytics II

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.

Voraussetzung

We highly recommend to complete "Social Media Research" or "Wissenschaftliche Methodik der Wirtschaftsinformatik" courses at our chair before choosing this seminar/project.

Literatur

- Collis, J., Hussey, R. (2013). Business research: A practical guide for undergraduate and postgraduate students. Palgrave Macmillan.
- DeVellis, R. F. Scale Development: Theory and Applications (Vol. 26), Sage Publications, 2011.
- Pedhazur, E. J., and Schmelkin, L. P. Measurement, Design, and Analysis: An Integrated Approach, Psychology Press, 2013.
- Recker J. Scientific Research in Information Systems: A Beginner's Guide, Springer, 2012.

Supplementary Readings: Additional articles and resources will be provided on a need-to basis via Moodle.

Leistungsnachweis

The course performance will be evaluated based on:

- Exposé, i.e. 1-2 Pages Research Proposal (Deadline May, 15)

- (Online) Presentations

- Seminar Pape r (Deadline August, 14)

Lerninhalte

A number of social platforms have gained popularity in recent years (e.g. Facebook, Instagram, Airbnb, etc). Their breath-taking success manifests itself in millions of user subscriptions, significant time spent on the site, and a steep growth of conducted transactions. Facebook alone has over 2.32 billion monthly active users. By rapidly changing the way we communicate, inform ourselves, spend our free time, learn and buy, these platforms transform the society we live in today. Facing this wave of new developments, many keep asking about the meaning and long-term consequences of these changes.

Possible topics include, but are not limited to:

- AI for Control: Perceived Fairness of Consumer Scoring
- Automation and Trust Repair Strategies
- Chatbots and Service Quality
- Corona Emotions and Effects on Respondent Behavior
- Economic Inequality and Social Media Use
- Goal-Setting and Behavior Change
- Physician Rating Platforms
- Resentment Towards the Rich
- Social Media And Company’s Stock Prices: Walking Hand-In-Hand Or On One's Own?
- Twitter Data And Financial Markets Movements
- Tweets That Beat The Street? A Systematic Literature Review On Whether Tweets Can Predict Stock Behavior
- Digital Discrimination: Investigating The Xenophobic Behavior (incl. Hate Speech) On The Web During The Outbreak Of The Covid-19 Pandemic.
- Fighting Misinformation On Social Media: Empirical Evidence
- Tik Tok On The Clock, But The Party Don't Stop: Exploring The Motives Of Tiktok Use

Students will be asked to get a deep understanding of the topic of their choice, present their findings by giving a presentation and write a seminar paper. The seminar will be held in English.

Leistungen in Bezug auf das Modul

SL 557212 - Seminar (unbenotet)

88815 S - Social Network Analysis Seminar

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	S	Do	10:00 - 12:00	wöch.	Online.Veranstalt	15.04.2021	Dr. Annika Baumann
	individual appointments						

Voraussetzung

None

Students will be required within the seminar to create and analyze a (social) network on their own. Some basic programming skills are helpful but are not necessary as students can chose which tool(s) to use.

Literatur

Barabási, A. L. (2013). Network science. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences* , *371* (1987), 20120375.

Leistungsnachweis

Presentations & Seminar Paper

Bemerkung

All sessions of the seminar will be held online.

More information (including the Zoom details for the sessions) can be found on Moodle .

Lerninhalte

In our intertwined world, everyone and everything is connected with each other. A theory, commonly known as "Six Degrees of Separation" or "Small World Phenomenon", postulates that every human being in this world is connected to any other person through only very few others. An experiment performed by the psychologist Stanley Milgram in 1967 was able to show that this phenomenon seems to be true indeed. Nowadays, platforms such as Social Media do make it even easier to investigate the underlying social structures with large-scale datasets being readily available. However, networks do not only form the underlying basis in the case of Social Media platforms but they are almost everywhere we look.
In the **Seminar "Social Network Analysis"** students will get to learn some basic underlying graph theory, work with scientific papers using networks to investigate research questions, and work on a network-based project on their own.

Leistungen in Bezug auf das Modul

SL	557212 - Seminar (unbenotet)

88918 S - Digital Business and Consumer Behavior

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	S	Mi	14:00 - 18:00	wöch.	Online.Veranstalt	14.04.2021	Dr. Antonia Köster
	individual appointments						

Abkürzungen entnehmen Sie bitte Seite 5

Kommentar

Dear students,

the **seminar sessions will take place online.**

The first class will take place on **Wednesday, 14.04, at 14:15** in Zoom.

https://uni-potsdam.zoom.us/j/9706959534

Meeting ID: 970 695 9534

Passcode: 67357865

In the Moodle course, you can find more details on how the seminar will be organized and a description of the topics we will offer.

Please find the Moodle course here

All the course materials are distributed via Moodle:

Course: DigiBusiness21 (Seminar & Project)

Enrollment key: DigiBusinessSS21

Voraussetzung

We highly recommend completing "Social Media Research" or "Wissenschaftliche Methodik der Wirtschaftsinformatik" courses at our chair before choosing this seminar/project.

Leistungsnachweis

The course performance will be evaluated based on:

- Exposé, i.e. 1-2 Pages Research Proposal (Deadline May)

- (Online) Presentations

- Seminar Pape r (Deadline August)

Lerninhalte

This seminar aims to analyze social media consumption as well as financial investments and economic inequality.
The objective is to examine how online platforms can have an impact on the user's behavior.

Possible topics include, but are not limited to:

- **The Impact of Online Platforms on User's Economic Inequality Beliefs**
- **Analyzing App Business Models**
- **Analyzing Reddit Forum Data "Wallstreetbets"**
- **Social Media Consumption and Financial Investments**
- **Social Media Use and Overview on Societal Consequences**

Students will be asked to get a deep understanding of the topic of their choice, present their findings by giving a presentation and write a seminar paper. The seminar will be held in English. Students can work in groups.

Tentative Schedule

1st Session| April, 14| Kick-Off (Zoom)

2nd Session: Academic Coordination

3rd Session|May, 12| Exposé Submission

4th - 5th Session: Academic Coordination (optional)

6th Session|June, 2| Mid-term presentation (Zoom)

7th -11th Session: Academic Coordination (optional)

12th Session|July, 7| Final presentation (Zoom)

August, 4| Report Submission

Leistungen in Bezug auf das Modul

SL 557212 - Seminar (unbenotet)

88920 S - Emerging Information Systems Topics in the Era of Pandemics

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	S	Mi	10:00 - 12:00	wöch.	Online.Veranstalt	14.04.2021	Safa'a AbuJarour

Kommentar

- This course will take place via Zoom virtual meetings
  - https://uni-potsdam.zoom.us/j/62169978106
  - Passcode: 61027879
- After the first session, the link to the course in Moodle will be shared with students

Leistungsnachweis

- Short Expose (1-2 pages)
- Bi-Weekly Short Presentation (5 minutes)
- Final presentation (15-20 minutes) at the end of the semester
- Seminar Paper (10-15 pages, depending on the number of students in the group)

Lerninhalte

Description :

The world has faced an unprecedented catastrophe in the COVID-19 pandemic. The unusual circumstances created by COVID-19's rapid spread provide a unique opportunity to study the role of Information Systems and Technology in supporting people through this pandemic and beyond. This seminar considers topics related to the pandemic's impacts on jobs and work (for both employers and employees), education and educational institutions (including learners and educators), family and home life (including life changes for adults and children), and global society.

Students are required to write a seminar paper following research methods, including literature reviews or studies employing qualitative, quantitative, or mixed methods.

Examples of topics are:

- The role of technology in alleviating the current pandemic
- Using ICT to foster learning, working, and social activities
- Social opportunities and challenges in the era of COVID-19 (e.g., social isolation, well-being, and work-life boundaries and conflicts)
- Consequences of COVID-19 on work, education, or society
- Working from home during lockdowns
- Adjusting to the "new normal"
- Best practices in education, work, and social contexts

Zielgruppe

- Open to all students from different disciplines, also for Erasmus students

Leistungen in Bezug auf das Modul

SL 557212 - Seminar (unbenotet)

88921 S - Social Media Research Seminar

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	S	Fr	12:00 - 16:00	wöch.	Online.Veranstalt	16.04.2021	Prof. Dr. Hanna Krasnova, Katharina Baum, Julio Brandl
	individual appointments						

Voraussetzung

We highly recommend to complete "Social Media Research" or "Wissenschaftliche Methodik der Wirtschaftsinformatik" courses at our chair before choosing this seminar/project.

Literatur

- Collis, J., Hussey, R. (2013). Business research: A practical guide for undergraduate and postgraduate students. Palgrave Macmillan.
- DeVellis, R. F. Scale Development: Theory and Applications (Vol. 26), Sage Publications, 2011.
- Pedhazur, E. J., and Schmelkin, L. P. Measurement, Design, and Analysis: An Integrated Approach, Psychology Press, 2013.
- Recker J. Scientific Research in Information Systems: A Beginner's Guide, Springer, 2012.
Supplementary Readings: Additional articles and resources will be provided on a need-to basis via Moodle.

Leistungsnachweis

The course performance will be evaluated based on:

- Slam Presentation, Midterm Presentation, Final Presentation

- Seminar Pape r

Abkürzungen entnehmen Sie bitte Seite 5

Lerninhalte

This class will start on Friday 16.04.2021, at 12:15 via ZOOM

A number of social platforms have gained popularity in recent years (e.g. Facebook, Instagram, Airbnb, etc). Their breath-taking success manifests itself in millions of user subscriptions, significant time spent on the site, and a steep growth of conducted transactions. Facebook alone has over 2.32 billion monthly active users. By rapidly changing the way we communicate, inform ourselves, spend our free time, learn and buy, these platforms transform the society we live in today. Facing this wave of new developments, many keep asking about the meaning and long-term consequences of these changes.

This seminar/project focuses on conveying four important research methodologies:

- Systematic Literature Review
- Qualitative Data Analysis, e.g. interviews, focus groups
- Quantitative Data Analysis, e.g. survey
- Big Data Analysis

Possible topics include, but are not limited to:

- Cognitive biases and social media use
- Social media and well-being
- Open data and the willingness to share
- Digitization of health: Mental disorders
- Digital working culture & digital collaboration
- How does Instagram use influence users self-awareness?
- Work-home / home-office during COVID-19
- Elderly & ICT
- The body in social media
- Digital resilience & digital coping strategies
- How did the sentiment regarding the AstraZeneca vaccines evolve over time?
- Vaccine myths: What kind of myths regarding vaccines exist?
- Moral foundations of anti-vaccine discussions on Twitter
- Enterprise Social Networks and Burnout
- Smartphone Use and Child Well-Being
- Narcissism and Social Media Use
- Active Use of Social Media and Well-Being Outcomes
- Measuring Self-Disclosure
- Self-Awareness on Social Media

Students will be asked to get a deep understanding of the topic of their choice, present their findings by giving a presentation and write a seminar paper. The seminar will be held in English.

Leistungen in Bezug auf das Modul

SL	557212 - Seminar (unbenotet)

INF-DSAM6A - Advanced Applied Data Science A

86424 S - Big Data Middleware for Data Analytics

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	S	Mo	14:00 - 16:00	wöch.	Online.Veranstalt	12.04.2021	Prof. Dr. Bettina Schnor

Kommentar

Mehr Informationen zum Kurs finden Sie auf unserer Webseite zur Lehre:

https://www.cs.uni-potsdam.de/bs/teaching/docs/courses/ss2021/mda/

Leistungen in Bezug auf das Modul

SL	557221 - Vorlesung / Seminar / Übung / Projekt (unbenotet)

86479 VU - Irrigation and Agricultural Hydrology

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	VU	Do	10:15 - 11:45	wöch.	Online.Veranstalt	15.04.2021	Sarah Bereswill

Leistungen in Bezug auf das Modul

SL	557222 - Vorlesung / Seminar / Übung / Projekt (unbenotet)

86498 VS - Dryland water ressources

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	VS	Do	12:15 - 13:45	wöch.	2.05.1.08	15.04.2021	Prof. Dr. Axel Bronstert, Omar Mahmoud Abdelwahab Seleem

Leistungen in Bezug auf das Modul

SL 557221 - Vorlesung / Seminar / Übung / Projekt (unbenotet)

INF-DSAM6B - Advanced Applied Data Science B

86263 VU - Big Data Analytics

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	VU	N.N.	N.N.	Einzel	N.N.	N.N.	Dr. rer. nat. Taylor Taran Smith, Prof. Dr. Bodo Bookhagen
	online synchron / nach Absprache						
1	VU	N.N.	N.N.	Block	N.N.	N.N.	Dr. rer. nat. Taylor Taran Smith, Prof. Dr. Bodo Bookhagen
	online synchron / nach Absprache						

Leistungen in Bezug auf das Modul

SL 557231 - Vorlesung / Seminar / Übung / Projekt (unbenotet)

86432 S - Current Topics in Computational Intelligence

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	S	Di	12:00 - 14:00	wöch.	Online.Veranstalt	20.04.2021	Prof. Dr. Torsten Schaub, Javier Romero Davila, Etienne Tignon

Kommentar

As its name suggestions, this power seminar deals with currently hot topics in Artificial Intelligence, and has hence a varying conents each semester

Check the moodle page and join us at the first event to learn more about it!

Bemerkung

ATTENTION! This course was merged into the course "Multi-agent path-finding"

Leistungen in Bezug auf das Modul

SL 557231 - Vorlesung / Seminar / Übung / Projekt (unbenotet)

86479 VU - Irrigation and Agricultural Hydrology

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	VU	Do	10:15 - 11:45	wöch.	Online.Veranstalt	15.04.2021	Sarah Bereswill

Leistungen in Bezug auf das Modul

SL 557231 - Vorlesung / Seminar / Übung / Projekt (unbenotet)

88751 S - Practical Applications of Deep Learning

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	V	N.N.	N.N.	wöch.	N.N.	N.N.	Dr. rer. nat. Haojin Yang

Kommentar

Angaben zum Lehrinhalt in der Beschreibung aufrufbar unter https://hpi.de/studium/lehrveranstaltungen.html

Voraussetzung

Voraussetzungen werden in den Lehrinhaltsbeschreibungen unter https://hpi.de/studium/lehrveranstaltungen.html benannt.

Bemerkung

Unter https://hpi.de/studium/lehrveranstaltungen.html sind folgende Angaben aufrufbar:

- Raum und Zeit
- Lehrinhalt und Leistungserfassung
- Teilnehmerbegrenzung

Leistungen in Bezug auf das Modul

SL 557231 - Vorlesung / Seminar / Übung / Projekt (unbenotet)

88843 S - Knowledge Graphs

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	V	N.N.	N.N.	wöch.	N.N.	N.N.	Dr. Ralf Krestel

Kommentar

Angaben zum Lehrinhalt in der Beschreibung aufrufbar unter https://hpi.de/studium/lehrveranstaltungen.html

Voraussetzung

Voraussetzungen werden in den Lehrinhaltsbeschreibungen unter https://hpi.de/studium/lehrveranstaltungen.html benannt.

Bemerkung

Unter https://hpi.de/studium/lehrveranstaltungen.html sind folgende Angaben aufrufbar:

- Raum und Zeit
- Lehrinhalt und Leistungserfassung
- Teilnehmerbegrenzung

Leistungen in Bezug auf das Modul

SL 557231 - Vorlesung / Seminar / Übung / Projekt (unbenotet)

88993 VU - Introduction to theoretical systems biology

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	U	Mo	14:15 - 15:45	wöch.	Online.Veranstalt	12.04.2021	Daniel Seeler
1	V	Mi	08:15 - 09:45	wöch.	Online.Veranstalt	14.04.2021	Prof. Dr. Wilhelm Huisinga

Kommentar

The course is an online course, most of the times asynchronous. All relevant course material is provided on Moodle. The hands-on exercises are online in an synchronouos format.

Literatur

A list of references is provided via Moodle.

Leistungsnachweis

To successfully complete the course, you will have to pass a written exam (90min). Importantly, you will have to register via PULS to be able to take the exam. Mind the corresponding deadlines. No registration, no exam, no exception.

Bemerkung

There is a Moodle page for this course (--> LINK); please register (pw: -please send an email to huisinga@uni-potsdam.de). All further information (slidecasts, PDF of slides, Zoom dial-in details, weekly assignments etc) will be provided on the Moodle page.

Lerninhalte

Modelling, simulation and analysis of biochemical reaction networks; deterministic and stochastic reaction kinetics; methods of model redution; network motifs

Kurzkommentar

The course will start with an introductory meeting on Wednesday, 14 April at 8:15 via zoom. The dial-in details can be found on the Moodle page of the course (see below).

Zielgruppe

MSc Bioinformatics, MSc Mathematics; MSc Data Science; MSc Computational Science; MSc Physik

Leistungen in Bezug auf das Modul

SL 557231 - Vorlesung / Seminar / Übung / Projekt (unbenotet)

INF-DSAM7 - Computer Engineering for Big Data

86263 VU - Big Data Analytics

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	VU	N.N.	N.N.	Einzel	N.N.	N.N.	Dr. rer. nat. Taylor Taran Smith, Prof. Dr. Bodo Bookhagen
	online synchron / nach Absprache						
1	VU	N.N.	N.N.	Block	N.N.	N.N.	Dr. rer. nat. Taylor Taran Smith, Prof. Dr. Bodo Bookhagen
	online synchron / nach Absprache						

Leistungen in Bezug auf das Modul

PNL 557242 - Übung oder Projekt (unbenotet)

86383 VU - Hardware-Architekturen für KI-Anwendungen

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	U	Fr	12:00 - 14:00	wöch.	Online.Veranstalt	16.04.2021	Junchao Chen, Prof. Dr. Milos Krstic, Anselm Breitenreiter
1	V	N.N.	N.N.	wöch.	N.N.	N.N.	Prof. Dr. Milos Krstic

Kommentar

Introductory lecture is on Friday 16.4. at 15:30.

Please use the following link:

Topic: Hardware Architectures for AI - Intro Lecture

Time: Apr 16, 2021 03:30 PM Amsterdam, Berlin, Rome, Stockholm, Vienna

Join Zoom Meeting

https://uni-potsdam.zoom.us/j/61882678937

Meeting ID: 618 8267 8937

Passcode: 66269809

One tap mobile

+496950502596,,61882678937#,,,,*66269809# Germany

+496971049922,,61882678937#,,,,*66269809# Germany

Dial by your location

+49 695 050 2596 Germany

+49 69 7104 9922 Germany

+49 30 5679 5800 Germany

Meeting ID: 618 8267 8937

Passcode: 66269809

Find your local number: https://uni-potsdam.zoom.us/u/cb9g9f4Jhu

Join by SIP

61882678937@fr.zmeu.us

Join by H.323

Meeting ID: 618 8267 8937

Passcode: 66269809

Leistungsnachweis

Mündliche Prüfung.

Lerninhalte

In this course the focus will be on the specifics of hardware design and architectures for AI applications. After the overview of the standard design techniques and common computing architectures, the additional requirements of AI will be discussed. Based on this, the specific architectures and design methods increasing the efficiency of the computation will be discussed. Finally, this course will include also an introduction to the emerging and novel architectures and technologies that could have significant impact in the future.

Here is the detailed list of topics:

- Introduction in VLSI design and computer architectures
- State of the art processor architecture, Example RISC-V
- Limitations of classical architectures for AI applications
- Accelerators architectures: GPUs, MAC arrays
- Neuromorphic Architectures (TrueNorth, Loihi, Spinnaker), asynchronous design
- Emerging architectures: In-Memory-Computing (example RRAM)

Leistungen in Bezug auf das Modul

PNL 557242 - Übung oder Projekt (unbenotet)

86424 S - Big Data Middleware for Data Analytics

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	S	Mo	14:00 - 16:00	wöch.	Online.Veranstalt	12.04.2021	Prof. Dr. Bettina Schnor

Kommentar

Mehr Informationen zum Kurs finden Sie auf unserer Webseite zur Lehre:

https://www.cs.uni-potsdam.de/bs/teaching/docs/courses/ss2021/mda/

Leistungen in Bezug auf das Modul

SL 557241 - Vorlesung oder Seminar (unbenotet)

89224 PJ - Big Data Middleware for Data Analytics

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	PJ	N.N.	N.N.	Block	N.N.	N.N.	Prof. Dr. Bettina Schnor
	Raum und Zeit nach Absprache; 01.09. - 24.09.21						

Leistungen in Bezug auf das Modul

PNL 557242 - Übung oder Projekt (unbenotet)

INF-DSAM9 - Computational Foundations of Data Science

86411 VU - Codierungstheorie

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
Alle	V	Mo	16:00 - 18:00	wöch.	Online.Veranstalt	12.04.2021	Prof. Dr. Michael Gössel
1	U	Do	16:00 - 18:00	wöch.	Online.Veranstalt	15.04.2021	Prof. Dr. Michael Gössel

Kommentar

Sprache: Deutsch/Englisch je nach Fähigkeiten der Teilnehmer und Teilnehmerinnen

Die Vorlesung Codierungstheorie führt in die Grundlagen der Fehlererkennung und Fehlerkorrektur von Daten unter Verwendung von fehlererkennenden und fehlercorrigierenden Codes ein. In der Codierungstheorie werden mathematische Begriffe und Ergebnisse der linearen Algebra und der Theorie endlicher Körper unmittelbar in technische Lösungen umgesetzt, was ein tiefes Verständnis und eine goße Schönheit technischer Lösungen ermöglicht.

Durch die extreme Verkleinerung elektronischer Bauelemente nimmt deren Fehleranfälligkeit ständig zu, weshalb Fehlererkennung und Fehlerkorrektur insbesondere für sicherheitskritische Anwendungen, aber nicht nur für diese, von wachsender Bedeutung ist. Z. B. durch das Internet der Dinge sind zunehmend fehlersichere Datenübertragungen auch zwischen Geräten erforderlich

In der Vorlesung werden die folgenden linearen Codes detailliert behandelt: Paritätscode, Hamming-Code, Hsiao-Code, zyklische Code, BCH-Codes und Reed-Solomon-Codes, Low-Density-Parity Codes. Auf nichtlineare Codes wird kurz eingegangen. Die Möglichkeiten und Grenzen der Fehlererkennung und der Fehlerkorrektur und auch der damit zusammenhängenden ethischen Probleme werden ausführlich besprochen.

Nach einem erfolgreichen Abschluss der Vorlesung sind die Teilnehmer/innen in der Lage, fehlererkennende und fehlerkorrigierende Code anzuwenden und auf konkrete praktische Probleme anzupassen.

Lösungen der Übungsaufgaben werden von den Studenten vorgestellt und diskutiert (in Deutsch oder Deutsch). 50% der Aufgaben müssen richtig gelöst werden, um die Veranstaltung positiv bewerte zu bestehen.

Eine regelmäßige Teilnahme (80 %) wird erwartet.

The solutions of the exercises will be presented (in German, or depending on the participants) by the students and dicussend. 50 % of the exercises have to be correctly solved by a studend to be qualified for the examination which can be done in Geman, Englisch and Russian..

Participation of 80 % wil be expected

Voraussetzung

Grundkenntnisse in Mathematik, insbesondere Elementare Lineare Algebra. Grundkentnisse der Theorie endlicher Körper sind von Vorteil, aber nicht Voraussetzung, da diese in der Vorlesung eingeführt werden.

Von Vorteil sind ebenfalls Grundkenntnisse in technischer Informatik, die auch in der Vorlesung/Übung gelernt werden können.

Literatur

Die Standars-Ergebnisse der Codierungstheorie sind in einer Vielzahl von Lehrbüchern dargestellt.

Beispielsweise in

Rohling, H. "Einführung in die Informations-und Codierungstheorie", Teubner, 1995

Lin, S. and Costello, "Error Control Coding", 2. Auflage, 2004, Person Education und Prentice-Hall, preisswerte 1. Auflage, 1983 (Für die Vorlesung sind nur ausgewählte Abschnitte Wichtig)

E. Fujiwara "Code-Design for Dependable Systems", 2006, Wiley,preiswerte vorige Auflage als Rao, T. and Fujiwara, E " Eror Control Coding for Computer Systems", Prentice Hasll 1989 (Für die Vorlesung sind nur ausgewählte Abschnitte Wichtig)

spezielle Literatur, insbesonderre auch Patente, zu einzelnen Themen wird in der Vorlesung/Übung genannt

Abkürzungen entnehmen Sie bitte Seite 5

Leistungsnachweis

Die Bewertung der Veranstaltung erfolgt in diesem Semester dadurch, dass jeder Teilnehmer einen ca 30 minütigen Vortrag in einer Uebung zu einem Thema haelt , das die Vorlesung ergänzt, (auf Skype) und dass On-line eine mündliche Prüfung erfolgt. Weiterhin ist erforderlich, dass 50 % der Punkte der Übungsaufgaben erreicht werden,, die wöchentlich abzugeben sind. Der Vortrag ist in Deutsch (möglichst) oder falls erfordelich in Englisch möglich. Die mündliche Prüfung kann auf Wunsch in Deutsch, oder Englisch erfolgen.

Vortrag und mündliche Prüfung werden jeweils mit 50 % gewertet.Die Bewertung der Veranstaltung erfolgt in diesem Semester dadurch, dass jeder Teilnehmer einen ca 30 minütigen Vortrag in einer Uebung zu einem Thema haelt , das die Vorlesung ergänzt, (auf Skype) und dass On-line eine mündliche Prüfung erfolgt. Weiterhin ist erforderlich, dass 50 % der Punkte der Übungsaufgaben erreicht werden,, die wöchentlich abzugeben sind. Der Vortrag ist in Deutsch (möglichst) oder falls erfordelich in Englisch möglich. Die mündliche Prüfung kann auf Wunsch in Deutsch, oder Englisch erfolgen.

Vortrag und mündliche Prüfung werden jeweils mit 50 % gewertet.

Lerninhalte

Kenntis bekannter Codes und neuerer Codes,

Fähigkeit zum eigenständigen Lösen praktischer Aufgaben der Codierungstheorie und zum Literaturstudium wissenschaftliche Arbeiten und von Patenten unter Verwendung der in der Veranstaltung gelernten Grundbegriffe,

Fähigkeit zum wissenschaftlichen Arbeit etwa im Rahmen einer Bacherlor- oder Masterarbeit,

Grundlegendes Verständnis der Möglichkeiten der Fehlererkennung und Fehlerkorrektkur, die sich aus dem Wahrscheinlichkeitscharakter der auftretenden Fehler ergeben und der daraus resultierenden ethischen Probleme für das eigene Tun oder Nichttun.

Zielgruppe

Bacheler und Master-Studenten, die in der Lage sein wollen, Datenübertragung und Datenspeicherung fehlertolerant unter Verwendung von fehlererkennenden und fehlerkorrigierenden Codes zu sichern, oder die auf dem Gebiet der Codierungsthorie wissenschaftlich arbeiten wollen und beabsichtigen, ihre Bacherlor-oder Master-Arbeit zu schreiben.

Ein Interesse an der Umsetzung theoritischer Resultate in technische Lösungen oder in algorithmische Lösungen wird erwartet.

Leistungen in Bezug auf das Modul

PNL 557251 - Vorlesung und Übung (unbenotet)

86432 S - Current Topics in Computational Intelligence

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	S	Di	12:00 - 14:00	wöch.	Online.Veranstalt	20.04.2021	Prof. Dr. Torsten Schaub, Javier Romero Davila, Etienne Tignon

Kommentar

As its name suggestions, this power seminar deals with currently hot topics in Artificial Intelligence, and has hence a varying conents each semester

Check the moodle page and join us at the first event to learn more about it!

Bemerkung

ATTENTION! This course was merged into the course "Multi-agent path-finding"

Leistungen in Bezug auf das Modul

PNL 557251 - Vorlesung und Übung (unbenotet)

86433 DF - Multi-agent path finding

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	VU	Mo	14:00 - 16:00	wöch.	Online.Veranstalt	19.04.2021	Prof. Dr. Torsten Schaub, Etienne Tignon

Leistungen in Bezug auf das Modul

PNL 557251 - Vorlesung und Übung (unbenotet)

88752 VU - Deep Learning

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	V	N.N.	N.N.	wöch.	N.N.	N.N.	Prof. Dr. Christoph Lippert

Kommentar

Angaben zum Lehrinhalt in der Beschreibung aufrufbar unter https://hpi.de/studium/lehrveranstaltungen.html

Voraussetzung

Voraussetzungen werden in den Lehrinhaltsbeschreibungen unter https://hpi.de/studium/lehrveranstaltungen.html benannt.

Bemerkung

Unter https://hpi.de/studium/lehrveranstaltungen.html sind folgende Angaben aufrufbar:

- Raum und Zeit
- Lehrinhalt und Leistungserfassung
- Teilnehmerbegrenzung

Leistungen in Bezug auf das Modul

PNL 557251 - Vorlesung und Übung (unbenotet)

88776 VU - Computational Statistic

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	VU	N.N.	N.N.	wöch.	N.N.	N.N.	Prof. Dr. Bernhard Renard

Kommentar

Angaben zum Lehrinhalt in der Beschreibung aufrufbar unter https://hpi.de/studium/lehrveranstaltungen.html

Voraussetzung

Voraussetzungen werden in den Lehrinhaltsbeschreibungen unter https://hpi.de/studium/lehrveranstaltungen.html benannt.

Bemerkung

Unter https://hpi.de/studium/lehrveranstaltungen.html sind folgende Angaben aufrufbar:

- Raum und Zeit
- Lehrinhalt und Leistungserfassung
- Teilnehmerbegrenzung

Leistungen in Bezug auf das Modul

PNL 557251 - Vorlesung und Übung (unbenotet)

INF-DSAM10 - Research Data Management, Law, and Ethics

Für dieses Modul werden aktuell keine Lehrveranstaltungen angeboten

INF-DSAM11 - Applied Data Science Internship

86429 PJ - Intelligent Logistics Technology

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	PJ	Mo	12:00 - 14:00	wöch.	Online.Veranstalt	26.04.2021	Prof. Dr. Torsten Schaub, Javier Romero Davila,

							Francois Laferriere, Etienne Tignon

Links:

moodle	https://moodle2.uni-potsdam.de/course/view.php?id=23470

Kommentar

In this project, student teams build software systems addressing problems in warehouse logistics using problem solvers for answer set programming

Voraussetzung

Knowledge in answer set programming (and python).

Leistungsnachweis

Implementation, evaluation, presentation, and documentation.

Bemerkung

Offline communication is conducted primarily via the associated moodle page.

Announcements are also made through the email list of registered students in puls.

Questions can be address to krprojects@lists.cs.uni-potsdam.de .

Lerninhalte

On individual basis.

Kurzkommentar

Joint kick-off event for all projects of the professorship Knowledge Processing and Information Systems as announced in course catalog of the department and the associated moodle page.

Zielgruppe

Students interested in applying AI-techniques in logistics

Leistungen in Bezug auf das Modul

SL	557271 - Praktikum (mind. 8 Wochen) (unbenotet)

86430 PJ - Solver Construction

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	PJ	Mo	12:00 - 14:00	wöch.	Online.Veranstalt	26.04.2021	Javier Romero Davila, Francois Laferriere, Prof. Dr. Torsten Schaub, Etienne Tignon

Links:

moodle	https://moodle2.uni-potsdam.de/course/view.php?id=23470

Kommentar

In this project, student teams build their own problem solvers (or components thereof) based on modern constraint technology. Foremost this concerns ASP solving technology but equally well that of SAT, PB and related areas.

Voraussetzung

Good knowledge in ASP and/or SAT technology and python and/or C++

Literatur

- Answer Set Solving in Practice by Martin Gebser, Roland Kaminski, Benjamin Kaufmann, and Torsten Schaub Synthesis Lectures on Artificial Intelligence and Machine Learning, Morgan and Claypool

Leistungsnachweis

Implementation, evaluation, presentation, and documentation

Bemerkung

Offline communication is conducted primarily via the associated moodle page.

Announcements are also made through the email list of registered students in puls.

Questions can be address to krprojects@lists.cs.uni-potsdam.de .

Lerninhalte

On individual basis

Kurzkommentar

Joint kick-off event for all projects of the professorship Knowledge Processing and Information Systems as announced in course catalog of the department and the assiciated moodle page

Zielgruppe

Students interested in high-end programming

Leistungen in Bezug auf das Modul

SL 557271 - Praktikum (mind. 8 Wochen) (unbenotet)

86431 PJ - Declarative Problem Solving

Gruppe	Art	Tag	Zeit	Rhythmus	Veranstaltungsort	1.Termin	Lehrkraft
1	PJ	Mo	12:00 - 14:00	wöch.	Online.Veranstalt	26.04.2021	Francois Laferriere, Javier Romero Davila, Prof. Dr. Torsten Schaub

Links:

moodle	https://moodle2.uni-potsdam.de/course/view.php?id=23470

Kommentar

In this project, student teams build software systems whose core consists of problem solvers for combinatorial (optimization) problems, like answer set programming

Voraussetzung

Good knowledge in ASP and/or SAT.

Leistungsnachweis

Implementation, evaluation, presentation, and documentation

Bemerkung

Offline communication is conducted primarily via the associated moodle page.

Announcements are also made through the email list of registered students in puls.

Questions can be address to krprojects@lists.cs.uni-potsdam.de. krprojects@lists.cs.uni-potsdam.de

Lerninhalte

On individual basis

Kurzkommentar
Joint kick-off event for all projects of the professorship Knowledge Processing and Information Systems as announced in course catalogue of the department and the associated moodle page
Zielgruppe
MSc students who want to deepen their practical knowledge in declarative modelling techniques and their application
Leistungen in Bezug auf das Modul
SL 557271 - Praktikum (mind. 8 Wochen) (unbenotet)

Glossar

Die folgenden Begriffserklärungen zu Prüfungsleistung, Prüfungsnebenleistung und Studienleistung gelten im Bezug auf Lehrveranstaltungen für alle Ordnungen, die seit dem WiSe 2013/14 in Kranft getreten sind.

Prüfungsleistung	Prüfungsleistungen sind benotete Leistungen innerhalb eines Moduls. Aus der Benotung der Prüfungsleistung(en) bildet sich die Modulnote, die in die Gesamtnote des Studiengangs eingeht. Handelt es sich um eine unbenotete Prüfungsleistung, so muss dieses ausdrücklich („unbenotet“) in der Modulbeschreibung der fachspezifischen Ordnung geregelt sein. Weitere Informationen, auch zu den Anmeldemöglichkeiten von Prüfungsleistungen, finden Sie unter anderem in der Kommentierung der BaMa-O
Prüfungsnebenleistung	Prüfungsnebenleistungen sind für den Abschluss eines Moduls relevante Leistungen, die – soweit sie vorgesehen sind – in der Modulbeschreibung der fachspezifischen Ordnung beschrieben sind. Prüfungsnebenleistungen sind immer unbenotet und werden lediglich mit "bestanden" bzw. "nicht bestanden" bewertet. Die Modulbeschreibung regelt, ob die Prüfungsnebenleistung eine Teilnahmevoraussetzung für eine Modulprüfung oder eine Abschlussvoraussetzung für ein ganzes Modul ist. Als Teilnahmevoraussetzung für eine Modulprüfung muss die Prüfungsnebenleistung erfolgreich vor der Anmeldung bzw. Teilnahme an der Modulprüfung erbracht worden sein. Auch für Erbringung einer Prüfungsnebenleistungen wird eine Anmeldung vorausgesetzt. Diese fällt immer mit der Belegung der Lehrveranstaltung zusammen, da Prüfungsnebenleistung im Rahmen einer Lehrveranstaltungen absolviert werden. Sieht also Ihre fachspezifische Ordnung Prüfungsnebenleistungen bei Lehrveranstaltungen vor, sind diese Lehrveranstaltungen zwingend zu belegen, um die Prüfungsnebenleistung absolvieren zu können.
Studienleistung	Als Studienleistung werden Leistungen bezeichnet, die weder Prüfungsleistungen noch Prüfungsnebenleistungen sind.

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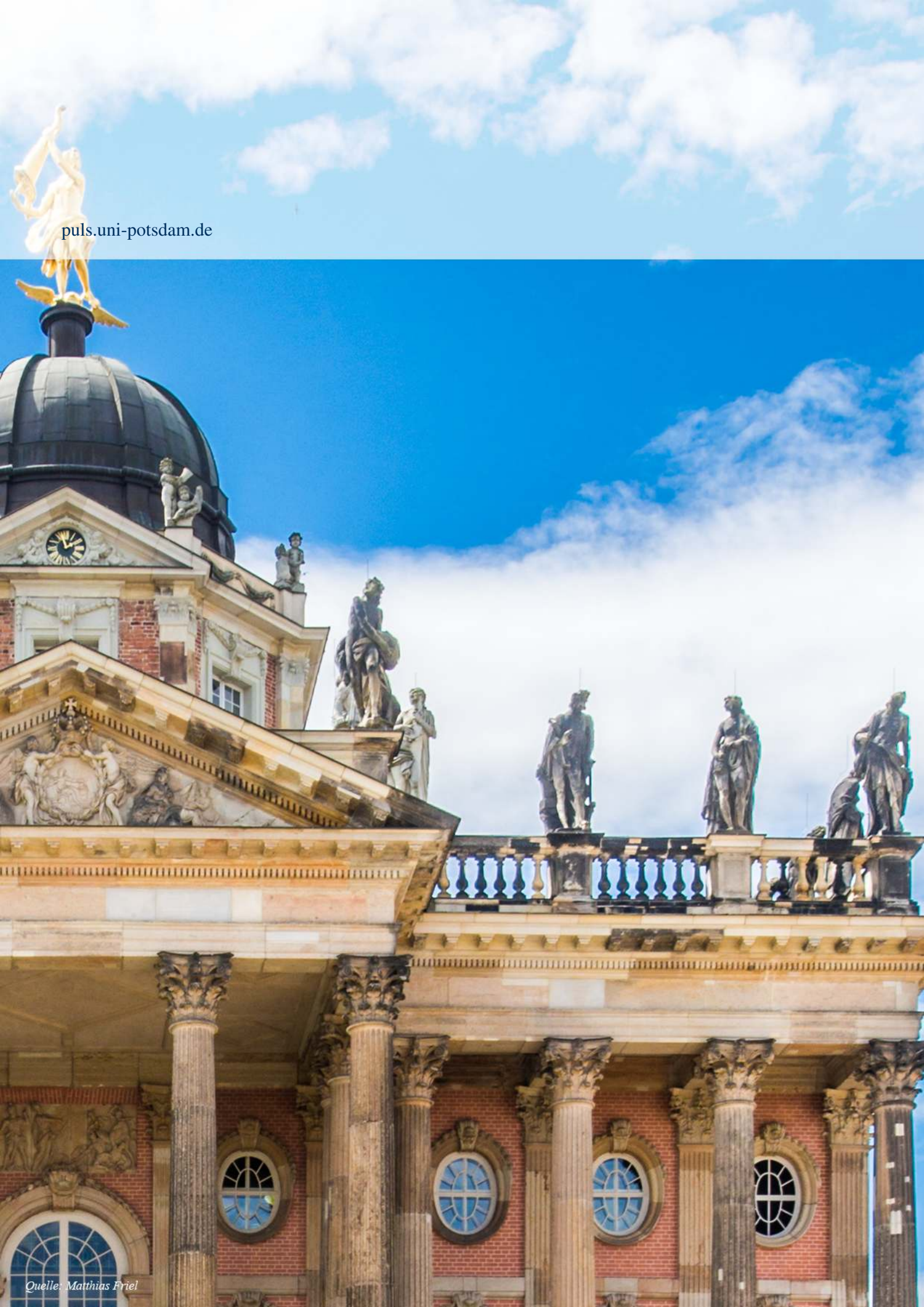

Quelle: Matthias Friel