WELCOME TO THE VIRTUAL ROADSHOW 2022
WHO IS JOINING TODAY?

Industry:
- Stefan Melles (DATEV)
- Bernardo Correia (Huawei)
- Julia Furtwängler (Holtzbrinck Publishing Group)
- Dr. Nicole Natho, Julia Lischka, Jessica Schmolla (IAV)
- Matthias Stede, Lisa Herge (Merck)
- Silke Munske, Arunraddi Mullur, Markus Zarbock, Fabian Bormann, Gerrit Lassahn (Volkswagen AG)
- Dr. Max Riedel (ZEISS)

Research:
- Prof. Jeronimo Castrillon (TU Dresden)
- Dr. Jens Haupert (DFKI)
- Philipp Schneider (TU München)

Alumni:
- Dr. Jonas Traub / Johannes Altmeppen / Dr. Quan Nguyen

Management Partner:
- Stefan Jazdzejewski
- Susanne Kegler
AGENDA

Plenum room, 12:00 a.m.  Information on the Software Campus program, the application and the industry partners

Plenum room, 12:30 a.m.  Intro from Alumni association

Plenum room, 12:35 a.m.  Questions?

Breakoutrooms, 12:45 a.m.  Meet the partners, participants and alumni

1:30 a.m.  End of event
WHAT IS THE SOFTWARE CAMPUS?

Research, industry and politics have joined forces to establish the Software Campus in order to help Germany become a key player in digitisation:

As a qualification and excellence program, it supports master students as well as doctoral students of computer science (and computer science-related disciplines) to become future leaders in the IT industry.

The Federal Ministry of Education and Research (BMBF) funds the program.

10 companies and 11 universities and research institutions are currently involved in the program.
IT-TALENTS BECOME FUTURE LEADERS

Software Campus is looking for doctoral or master students who...

• study computer science or a related subject
• strive for leadership positions or are interested in founding

Software Campus helps you to ...

• further develop your leadership skills in theory and practice
• get in touch with industry
• build a network of researchers and experienced as well as future leaders
THROUGHOUT THE SOFTWARE CAMPUS PROGRAM

**IT project**  
... you will manage your own IT project with your own team at university in cooperation with an industry partner. The BMBF supports each project with up to 100,000 euros under the regular conditions:  
Personnel costs for scientific staff + Travel costs to project meetings and conferences + Material resources e.g. for hardware + Subcontracts for special services + IPR stay with the research partner  
Your position will not be funded except minor expenses for project management

**Mentoring**  
... you are accompanied by a mentor from the industry.

**Trainings**  
... you will do leadership trainings in the areas of methodological, social & personal as well as management skills.
THE PROJECT TIME IS TWO YEARS*

1st year
- Application
- Application & admission

2nd year
- Participation
- Funding application
- IT research project
- Mentoring by the industry partner
- Trainings

3rd year
- SWC Summit

4th year
- Alumni
- Alumni association
- Network
- Events

* MASTER STUDENTS 1 YEAR
APPLY UNTIL FEBRUARY 27TH 2022 (MIDNIGHT)

Register at www.softwarecampus.de/bewerbung

Mandatory application documents:
• Topic of your masters or PhD thesis
• CV
• Motivation letter
• Overview of academic achievements
• Recommendation letter of at least one professor
• Project description (What is your Software Campus project?)
• You also have to participate in a personality questionnaire
YOUR (SCIENTIFIC & TECHNOLOGICAL) SKILLS AND YOUR PERSONALITY WILL BE ASSESSED

- **Application phase ends**
  - Submission of all documents
  - Recommendation letter can be submitted subsequently in individual cases

- **Selection days**
  - Save the date!
  - Personal online interview with HR experts of the industry partners

- **Academic review**
  - Peer review process for the assessment of your academic performance by professors of the research partners

- **Match Making**
  - between industry partners and you
  - Goal: Agree upon cooperation for your SWC project with an industry partner

Dates:
- February 27, 2022
- March 29-31, 2022
- April 2022
- May 2022
- Mid of June 2022
YOUR (SCIENTIFIC & TECHNOLOGICAL) SKILLS AND YOUR PERSONALITY WILL BE ASSESSED

Application phase ends: February 27, 2022
Selection days: March 29-31, 2022
Academic review: April 2022
Match Making: May 2022
Kick-Off: Mid of June 2022

Only the applicants who successfully passed the personal interview, successfully passed the academic review and agreed upon cooperation with an industry partner will be granted access to the program.
THE PARTNER NETWORK

RESEARCH PARTNERS

INDUSTRY PARTNERS

FEDERAL GOVERNMENT

University of Stuttgart

Fraunhofer

Bundesministerium für Bildung und Forschung

Datev

Technische Universität Dresden

MERCK

Zeiss

DATEV

Technische Universität Berlin

holtzbrinck

IAV

Universität Paderborn

TECHNISCHES ZENTRUM BERLIN

TRUMPF

GEFÖRDERT VOM

Technische Universität München

Volkswagen Aktiengesellschaft

Software AG

UNIVERSITÄT PALDBORN

Technische Universität München

SOFTWARE AG

HUAWEI

KIT

Friedrich-Alexander-Universität Erlangen-Nürnberg
Company Information

- 8,200 employees
- € 1,16 billion revenue
- Registered cooperative, founded 1966, headquarter in Nuremberg
- The DATEV data center acts as a data pivot with highly secure data transmission paths from companies to partners in the German economy, such as banks, public authorities, and institutions
- Software products, cloud solutions, service and training

Research topics and fields of interest

- Data Science / Big Data / AI
- Data Governance / Security
- Digital Ecosystem
- Knowledge systems and Interaction
- Software & Systems Engineering
Company Information

- 19,000 employees
- €3.4 billion revenue
- Founded 1945, headquarter in Bjerringbro
- Pump solutions

Research topics and fields of interest

- Coming soon
Company Information

- 14,000 employees
- € 3.2 billion revenue (incl. Joint Venture Springer Nature) in 2019
- Holding headquartered in Stuttgart, founded 1971
- Publishing and media group
  - scientific publications (Springer Nature)
  - educational offers (Macmillan Learning)
  - trade publishers (Macmillan Publishers)
  - digital companies focusing on science, education and content (Digital Science and Holtzbrinck Digital)

Research topics and fields of interest

- Natural Language Generation (NLG) from knowledge graphs
- From smart search to true discovery: browse, explore & discover based on knowledge information graphs
- Assisted automation or automated assistance? Highly scalable content enrichment under ubiquitous budget & quality constraints.
- Extrahierung und Strukturierung von Zitaten mittels NLP
- Combining transformer technology (such as GPT) and structured knowledge
- Automated generation of research proposals and funding applications as a researcher service
- Automated hypotheses generation
- Semantic search of scientific literature revisited. Combine the presence of concepts (what) with their role in the text (how).
- What’s the message behind this phrase? Extracting the intentions of the author from phrases in scientific publications.
- Exploring the book publishing market
- Conceiving the collaborative learning future
Company Information

- 196,000 employees globally / 105,000 in R&D / 15,000 (2,500 in R&D) in Europe
- Founded 1987 in Shenzhen
- Western Europe HQ located in Dusseldorf since 2007, 4 R&D sites in Germany with the European largest R&D center located in Munich (+600 employees)
- € 136.7 billion revenue in 2020
- Information technology and telecommunication solutions

Research topics and fields of interest

- Distributed computing, microservices, edge and fog computing, AI
- Beyond 5G / 6G
- Metaverse, QoE
- Traffic Simulation and Control
- Intelligent Cloud Infrastructures & Networks
- AR/VR, QoE. Resource saving
Company Information

- Founded in 1983 as a spin-off of Technical University Berlin
- Tech Solution Provider for the automotive and mobility industry with 25 locations in Germany, development centers in Berlin, Gifhorn and Chemnitz/Stollberg as well as several locations worldwide.
- 8200 employees

Research topics and fields of interest

- Container and Microservices in the car
- Use of AI in several contexts
- Intelligent automation in the software development process
- Cloud Services
- Connected Cars
- Autonomous Driving
Company Information
• 58,000 employees in 66 countries
• € 17.5 billion revenue in 2020
• Investment of €2.3 bn in R&D
• Oldest pharmaceutical-chemical company in the world, beginnings in 1668, Mainly family-owned to this day, headquarter in Darmstadt
• Healthcare, Life Science and Electronics

Research topics and fields of interest
• Computational Chemistry & Biologics / ML/AI
Company Information

- 4,700 employees
- €834 million revenue in 2020
- Headquarter in Darmstadt, founded 1969
- Software solutions in the area of Business Process Excellence

Research topics and fields of interest

- Software AG
Company Information

- 14,800 employees
- € 3.504 billion revenue in 2020/21
- Family business headquartered in Ditzingen near Stuttgart, founded 1923
- Manufacturing solutions in the fields of machine tools, laser technology and electronics as well as consulting, platform and software solutions

Research topics and fields of interest

- Anomaliedetektion im Fabriknetzwerk
- Automatische Überwachung von Schutzbereichen mit Kameras
- Analyse von Blechbaugruppen hinsichtlich Optimierungspotential
Company Information

- 662,000 employees
- €222.9 billion revenue in 2020
- Europe’s biggest car manufacturer
- Digitalisation of Volkswagen is driven by:
  - DATA:LAB in Munich
  - DIGITAL:LAB in Berlin
  - VIRTUAL.ENGINEERING:LAB in Wolfsburg
  - SMART.PRODUCTION:LAB in Wolfsburg

Research topics and fields of interest

- Depth estimation with single cameras using a rotating camera system
- Automatic distance calibrating up to which detection/segmentation is reasonable
- Object tracking through iterative object understanding using simple 3D base models
- no-code robotics & no-code AI zur Vermeidung von Nacharbeit
- Energy efficient process control in large-scale production context
Company Information

- 35.375 employees
- € 7.5 billion revenue in 2020/21
- Founded 1846 in Jena, today’s headquarter is Oberkochen, Digital Innovation Partners is located in Munich
- Optics and optoelectronics industries

Research topics and fields of interest

- Shared 3D Mapping with multiple AR glasses
- High level algorithm abstraction and efficient mapping on hardware accelerators
- Understanding and modelling workflow actions
- Event cameras for ultrafast eye tracking
- Modular framework for virtual prototyping of optical systems
- Next level of ultra-precise optical metrology
- Model based metrology/inspection
- Surrogate modeling of Maxwell equations
- Datafusion for Multisensor-Arrays
- Real-Time-Motion-Deblurring / -Velocity-Measurement
- Free-Form-Fitting
- ML Algorithm Certification
- Optimized exploitation of real-world data with Reinforcement learning
- Data-driven optimization of industrial production processes
Software Campus Alumni e.V.:
Jonas Traub (1st chairman), Johannes Altmeppen (2nd chairman), Quan Nguyen (treasurer)

Our activities:
- Networking
- Scientific Exchange
- Sharing Experiences / Learning from Experiences of others
- Meetings, Local Meetups, and Talks
- Sharing Alumni Experiences with Participants and Applicants

Become a Member:  [https://softwarecampus-alumni.de/mitglied-werden](https://softwarecampus-alumni.de/mitglied-werden)
Contact us:
The Board:  [vorstand@softwarecampus-alumni.de](mailto:vorstand@softwarecampus-alumni.de)
Jonas Traub (Head of the Board):  [jonas.traub@softwarecampus-alumni.de](mailto:jonas.traub@softwarecampus-alumni.de)
How many people were part of the program last year?
Every year around 50 participants are granted.

Can I apply with an own project idea? Shall I contact IP first and agree about the topic?
Yes, of course, that is possible. In your application, you can link your project idea to a topic of the industry partner (IPR) – but you are not obligated to. Please note, however, that a contact person aka supervisor in the technical department must be found at the industry partner cooperating with you. Therefore, we recommend to contact the respective industry partner already during the application phase. Feel free to talk to several of them in order to find the most suitable partner for you. Please ask stefan@softwarecampus.de for contact details of our partners.

Will the outcome of the project (intellectual property) belong to / be shared with industrial partners?
The IPR stay with the university.
How does it work as a master's student? Can you combine the project with one's master thesis? What if the studies end before the project is finished?

The Software Campus project can be part of your master thesis but cannot replace it. As a master’s student, your Software Campus project is only half of the PhD project, meaning 8-12 months. Most of that time, you should be enrolled as a student. But it is okay to finish the project even if you have already left university for some weeks/months. You must ensure that you are still able to lead your team.

Currently I am a masters student / researcher planning a PhD soon. Is it possible to apply for this year's Software Campus batch to plan ahead and work on a project next year, when I am a PhD student? What kind of proof of PhD status do we need to supply for the application?

In general, this is possible. With your application, you have to prove that you have already agreed upon a PhD topic with a professor, e.g. through a letter of acknowledgement. By the time your Software Campus project starts (around 1.1.2023) your status has to be PhD student to have the funding unblocked.

Is it possible to apply for a project spanning only 1 year as a doctoral student?

Yes, but not recommendable as times flies :-)

Do you have to be a masters/PhD student? For example, can I participate even though I'm a researcher?

Software Campus grants can only be given to enrolled masters and PhD students.
Can we apply for other funding and scholarships in parallel?
The application is possible. Please check with your departments of your university if it is okay to also receive other fundings in parallel.

What does "your own team" mean regarding the project?
With the grants given by BMBF, you hire and lead your own team at the university, e.g. masters students or researchers.

How much time do we have to build a team? Can it be done after the application since it might take time?
Funding will start most probably at the beginning of 2023, this is when you start hiring.

You mentioned that our position is not covered by the funding and only the "research staff". Does this mean a cost plan will include the cost of the team members and not us?
Yes, the budget should be used to hire a team – besides hard- and software as well as travels. Your management position can be funded for 1-2 person months.

Shall the proposal (or application) include details about the budget plan for two years?
For the application, a rough calculation suffices. Later, you need to hand in a detailed proposal with a detailed budget and work plan.
BREAK-OUT SESSIONS
MEET OUR INDUSTRY AND RESEARCH PARTNERS AND ALUMNI

• Find all rooms here: https://softwarecampus.de/aktuelles/application-phase-2022-info-event-on-january-26th/
• Choose the ones you like, ask questions, change the room
• Software Campus crew will stay in the plenum room together with research partners and alumni for questions
• Event ends at 13:30, no wrap up in the plenum
• This presentation will be available at the above link soon
APPLICATION PLATFORM IS OPEN
WWW.SOFTWARECAMPUS.DE