PURSUING A CS PHD IN EUROPE AND GERMANY

Talk 1: Introduction and Preparation

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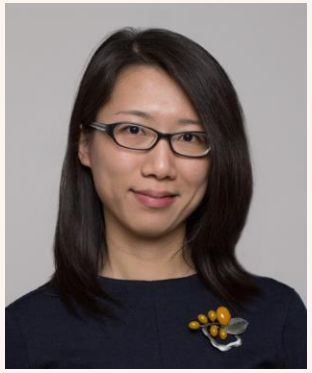
July 2024

ABOUT THE SPEAKER



Background

- Dr.-Ing in Computer Science from TU Braunschweig, Germany
- Years of experience in academia and industry, especially in European Startups

Area of Expertise

- Fault-tolerance, consensus in distributed systems, trusted computing
- Blockchain, Web3 research and development
- Academic career development

OVERVIEW

Talk 1: Introduction and Preparation

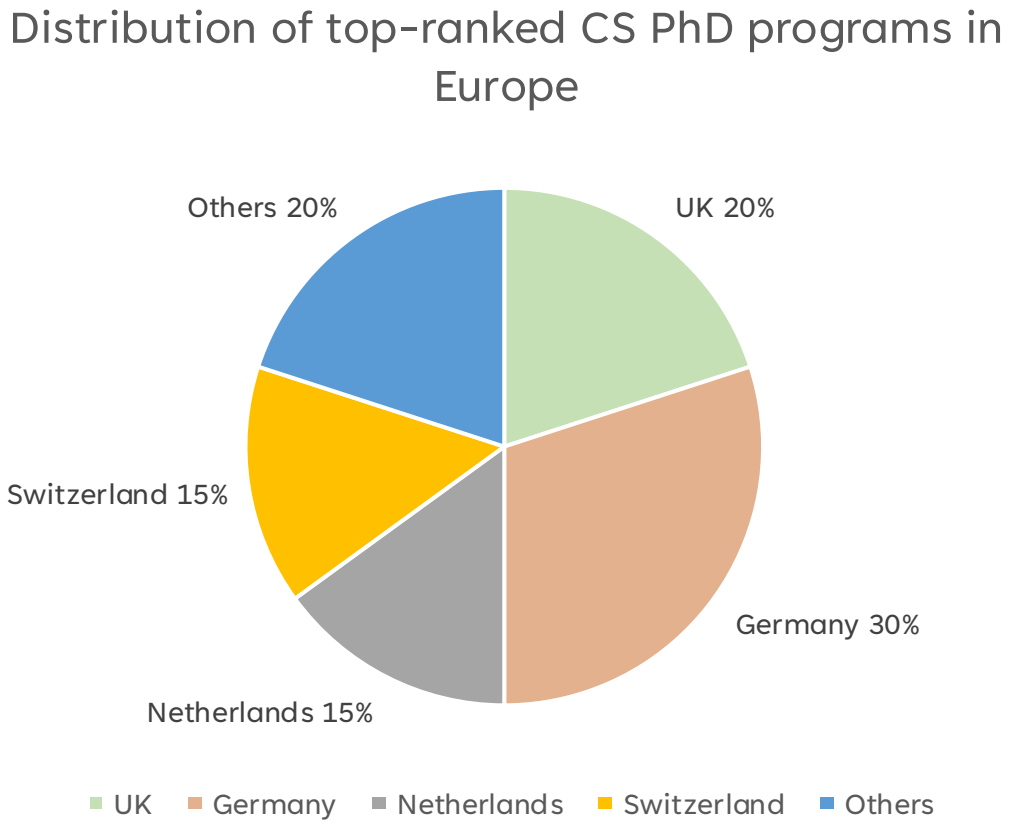
- Introduction to CS PhD programs in Europe
- Unique aspects of the German academic system
- Preparation for applying
- Application process

Talk 2: PhD Life and Beyond

- Funding and financial planning
- Starting your PhD and research life
- Publishing and conferences
- Completing your PhD and career prospects

INTRODUCTION: CS PHD PROGRAMS IN EUROPE

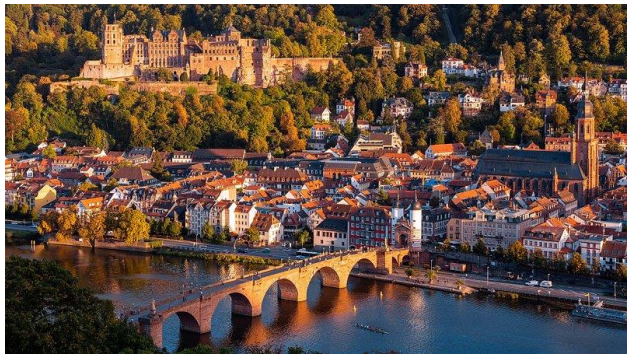
- Growing importance of advanced CS research
- Europe as a hub for cutting-edge CS PhD programs
- Germany's strengths: strong industry partnerships, excellent funding, world-class research institutions
- Comparison with other European countries (e.g., UK, Netherlands, Switzerland)



UNIQUE ASPECTS OF THE GERMAN ACADEMIC SYSTEM

- Strong industry partnerships
- Excellent funding opportunities
- World-class research institutions
- Focus on applied research
- Structured vs. individual doctorate programs

Munich



Heidelberg

BENEFITS OF PURSUING A PHD IN EUROPE/GERMANY

- High-quality research environment
- International collaboration opportunities
- Access to cutting-edge technologies and resources
- Strong emphasis on work-life balance
- Potential for industry connections
- Cultural experience and language skills

PREPARATION: PREREQUISITES

Academic Qualifications

- Master's degree in CS or related field
- Strong academic record (typically 2.0 or better in German grading system, B+/3.3 GPA or better in U.S. grading system)

Language Requirements

- English: Usually IELTS 6.5+ or equivalent
- German: Often not required, but beneficial

Research Experience

- Master's thesis
- Publications or conference presentations
- Relevant internships or projects

CHOOSING YOUR RESEARCH AREA

Considerations

- Assess your interests and strengths
- Explore current trends in CS research
- Consider interdisciplinary opportunities
- Align with potential career goals

Popular CS Research Areas in Germany

- Artificial Intelligence and Machine Learning
- Cybersecurity and Cryptography
- Human-Computer Interaction
- Big Data and Data Science

IDENTIFYING POTENTIAL SUPERVISORS AND INSTITUTIONS

Top CS Universities and Research Institutions

- Technical University of Munich (TUM)
- RWTH Aachen University
- Max Planck Institute for Informatics
- German Research Center for Artificial Intelligence (DFKI)
- www.research-in-germany.org
- www.gerit.org
- www.hochschulkompass.de

Finding the Right Supervisor

- Research faculty profiles and publications
- Attend CS conferences and workshops
- Leverage online platforms (e.g., ResearchGate, GitHub)
- Consider reaching out for informal discussions

PHD STRUCTURES IN GERMANY

Individual Doctorate

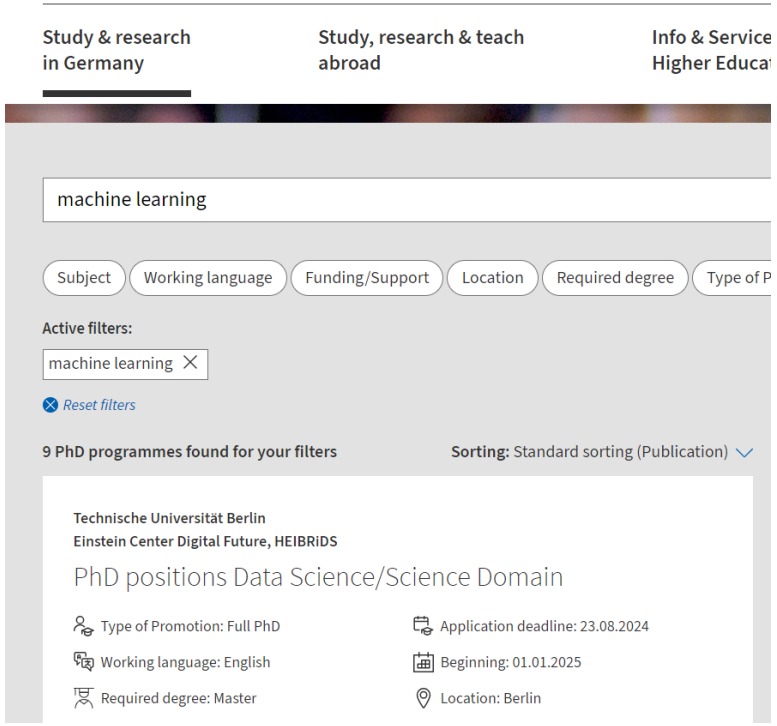
- Traditional and most common model
- Focus on independent research under a supervisor
- Often tied to research assistant (wissenschaftlicher Mitarbeiter) positions
- Employed by the university, full employee benefits (öffentliche Dienst)
- No formal coursework
- Includes teaching and administrative duties

Structured Programs

- More formalized, similar to US/UK model
- Includes coursework
- Often interdisciplinary
- May offer more networking opportunities
- Receives university fundings or scholarships

APPLICATION PROCESS: FINDING PHD POSITIONS

- University websites and job boards
- Online academic job portals
  - academics.de
  - phdgermany.de
  - daad.de/idp
  - funding-guide.de
- CS conferences and workshops



PREPARING APPLICATION MATERIALS

CV/Resume

- Academic background
- Research experience
- Technical skills
- Publications/presentations

Transcripts and Certificates

- Academic records
- Degree certificates
- Language proficiency proof

Research Proposal

- Clear research question
- Methodology
- Potential impact
- Alignment with supervisor/program

Letters of Recommendation (optional)

- From academic/research supervisors
- Highlighting research potential

APPLICATION TIMELINES AND INTERVIEW PROCESS

Timelines

- Vary by institution and program
- Generally, 6-12 months before intended start date
- Some programs have fixed annual deadlines
- Others review applications on a rolling basis

Interview Process

- Often conducted via video call
- May include presentation of past research
- Questions on technical knowledge and research interests
- Discussion of program expectations and your goals
- Tip: Prepare a short “elevator pitch” about your research interests

Q&A SESSION

Time for Your Questions!

Don’t hesitate to ask about any aspect of applying for a CS PhD in Germany.

Your questions help everyone learn!

PREVIEW OF TALK 2

Coming Up in Talk 2

- Funding and financial planning
- Starting your PhD and research life
- Publishing and attending conferences
- Completing your PhD and career prospects