Paul Schulte

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EDUCATION

RWTH Aachen University

Oct 2025 – present

M.Sc. Computer Science

Aachen, GER

• Currently enrolled, specializing in Machine Learning, Algorithms, and Graph Theory (planned focus).

RWTH Aachen University

Oct 2022 – Aug 2025

B.Sc. Computer Science

Aachen, GER

- **GPA**: 1.1/1.0 (with distinction)
- Dean's List: Top 5% of the academic years 2022/23 and 2024/25
- Relevant Coursework: Elements of Machine Learning and Data Science (1.0), Data Structures and Algorithms (1.0), Computability and Complexity (1.0)
- Accelerated completion: finished the program in 5 out of 6 semesters
- Final thesis: Action Classification Through Dynamic Scene Graph Generation From Image Sequences (Grade: 1.0)

Aalto University

Aug 2024 – Dec 2024

Espoo-Helsinki, FI

Semester Abroad (B.Sc. Computer Science)

• **GPA**: 5.0/5.0

• Relevant Coursework: Graph Theory, Machine Learning, Competitive Programming, Distributed Algorithms

Joseph König Gymnasium

Sep 2014 – Jun 2022

A-Levels, German Abitur

Haltern am See, GER

• **GPA:** 1.2/1.0

• Graduated top of the year in mathematics, physics, and computer science

Research Experience

Robotics Institute, Carnegie Mellon University

Pittsburgh, PA, USA

Undergraduate Research Intern, Robotics Institute Summer Scholars Program

May 2024 - Sep 2024

- Conducted research in Control Theory, Path Planning, and Autonomous Vehicles
- Developed a Model Predictive Control (MPC) framework enhanced with Control Barrier Functions (CBFs) to provide safety guarantees during trajectory planning
- Implemented real-time computations using JAX-Python on CPUs on F1Tenth hardware, reducing dependency on costly GPUs compared to state-of-the-art methods

Professional Experience

Siemens Logistics

Düsseldorf, GER

Feb 2023 – Nov 2023

Software Engineering Working Student

- Designed and implemented new features (in C#) for a software tool supporting airport baggage handling system
- Optimized conveyor-belt system analysis tools used worldwide, reducing computation time by up to 90%

Projects

Math Exercise Generator | JavaScript, HTML, Vue.js

Sep 2023 – Oct 2023

• Developed a free-to-use linear algebra exercise generator with automatic solution generation

Report on Neuroevolution of Fixed Topologies 🗹 | RL, Python, OpenAI Gym

2021

- Implemented neural networks from and an evolutionary algorithm from scratch
- Authored a report applying the algorithm to OpenAI Gym environments

DISTINCTIONS

DAAD Scholarship: RISE Worldwide

Mar 2024

• Scholarship awarded to German Bachelor students in natural sciences and engineering for research internships abroad

German Mathematical Society

 $\mathrm{Jun}\ 2022$

• Admitted as a student member in recognition of strong mathematics performance in high school

German Physical Society

 $\mathrm{Jun}\ 2022$

• Admitted as a student member in recognition of high school achievements in physics and mathematics

TECHNICAL SKILLS

Languages: German (native), English (C1) Programming: Python, Java, C++, C# Tools & Platforms: LATEX, Linux, Git, Docker