

Paul Schulte

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EDUCATION

RWTH Aachen University

B.S. Computer Science

Oct 2022 - Sep 2025

Aachen, GER

- **Current GPA:** 1.4/1.0
- **Relevant Coursework:** Elements of Machine Learning and Data Science (1.0) , Data Structures and Algorithms (1.0) , Computability and Complexity (1.0)

Aalto University

Semester Abroad (B.S. Computer Science)

Aug 2024 - Dec 2024

Espoo - Helsinki, FI

- **Current GPA:** 5.0/5.0
- **Relevant Coursework:** Graph Theory (5.0/5.0), Machine Learning (5.0/5.0)

Joseph König Gymnasium

A-Levels

Sep 2014 - Jun 2022

Haltern am See, GER

- **GPA:** 1.2/1.0
- Top of the year in mathematics and physics
- Admission to German Mathematical and Physical Society

RESEARCH EXPERIENCE

Robotics Institute, Carnegie Mellon University

Undergraduate Research Intern, Robotics Institute Summer Scholars Program

Pittsburgh, PA, USA

May 2024 – Present

- Conducted research in Control Theory, Path Planning, and Autonomous Vehicles
- Developed a Model Predictive Control (MPC) framework using Control Barrier Functions (CBFs) to enhance trajectory planning safety
- Achieved more risk-aware trajectory behavior, outperforming existing state-of-the-art methods
- Implemented real-time computations using JAX-Python on CPUs, reducing dependency on costly GPUs
- Currently preparing research for submission to a major U.S. conference

PROFESSIONAL EXPERIENCE

Siemens Logistics

Software Engineering Working Student

Düsseldorf, GER

Feb 2023 – Nov 2023

- Designed and programmed (in C#) features for a software tool used in the design of airport baggage handling systems

PROJECTS

Math exercise generator | *Javascript, HTML, Vue.js*

Sep 2023 - Oct 2023

- Created a free-to-use math exercise generator with automatic solution generation

Report on Neuroevolution of Fixed Topologies | *RL, Python, gym (OpenAI)*

2021

- Implemented Neural Networks and an evolutionary algorithm from scratch
- Wrote a report on the application of my algorithm to OpenAI Gym problems

DISTINCTIONS

DAAD Scholarship: RISE Worldwide

March 2024

- Scholarships for research internships for German Bachelor students of natural sciences and engineering

Dean's List honors

Feb 2024

- Top 5% the academic year 2022/23.

TECHNICAL SKILLS

Languages: German (mother tongue), English (C1)

Programming languages: Python, Java, C#, C++, C

Other Tools: L^AT_EX, ROS, Linux, Git