Joshua Meyer

Curriculum Vitae

Education

since 09.2024 **Doctoral studies computer science**, *Saarland University*, Saarbrücken
As a member of the neuroexplicit research training group, I work on the combination of neural and explicit methods in artificial intelligence. In particular, I specialize in the *action* field and currently focus on exploration in reinforcement learning under the supervision of Verena Wolf.

09.2022–08.2024 **Doctoral studies (preparatory)**, *Saarland University*, Saarbrücken
Early start of the doctoral program through the Graduate School of Computer Science

02.2022–06.2024 **Master studies computer science**, *Saarland University*, Saarbrücken
Thesis topic: *MARS: Multi-sample Allocation through Russian roulette and Splitting*
Overall grade: 1.0; Thesis grade: 1.0

10.2018–02.2022 **Bachelor studies computer science**, *Saarland University*, Saarbrücken
Thesis topic: *Integrating a Denoising Neural Network Into a Renderer Using a High-level Functional Language and Partial Evaluation*
Overall grade: 1.5; Thesis grade: 1.0

2010–2018 **Allgemeine Hochschulreife (Abitur)**, *Max-Planck-Gymnasium*, Saarlouis
Grade: 1.4

Practical Experience

04.2022–09.2022 **Research assistant**, *Saarland University*, German Research Center for AI (DFKI)
Efficient implementation of neural network routines on the GPU.
In this project, I implemented an efficient inference for Convolutional Neural Networks in the programming language AnyDSL on GPUs, following up on the CPU implementation of my bachelor thesis.

10.2020–03.2024 **Tutorials**, *Saarland University*
During my studies, I held tutorials for the lecture "Höhere Mathematik für Ingenieure 1" in German and for the lectures "Realistic Image Synthesis" and "Artificial Intelligence" in English.

01.2018–07.2022 **Student assistant**, *Schülerforschungszentrum*, Saarlouis
Technical assistant and supervision of Jugend Forscht participants.
I dealt with any technical questions and problems that arose. My tasks included the administration of a small server that supports requests of different kinds, e.g. processing data from microprocessors. I also helped students with their Jugend Forscht projects if they wanted to include technical aspects and needed assistance. Additionally, I programmed microprocessors to read and send sensor data.

08.2015 **Internship**, *Testfabrik AG*, Saarbrücken
During this internship, I familiarized myself with the functionality of the product "Webmate" and further developed the website.

2015–2020 **Private tutor**, *Independent*
Supervision of students in the subjects of mathematics and computer science.

Languages

German	Native
English	Full Professional Proficiency
Spanish	Conversational
French	Conversational

Publications

2024 **MARS: Multi-Sample Allocation through Russian Roulette and Splitting**.
Meyer, Joshua, Alexander Rath, Ömercan Yazici, and Philipp Slusallek.
In: *SIGGRAPH Asia 2024 Conference Papers, 1–10. SA '24. Tokyo, Japan: Association for Computing Machinery, 2024.* `https://doi.org/10.1145/3680528.3687636`.

Prizes and Awards

2022–2024 Scholarship by the Graduate School of Computer Science at Saarland University

2018 Deutsche Mathematiker-Vereinigung award for special achievements in the Abitur

2017 Participation at the "Deutsche Schülerakademie" organized by BMBF
Course: "Sichere Datenübertragung – Codierungstheorie im Alltag"

2017 Award from MPG Saarlouis' school association for outstanding achievements and exemplary commitment to community life

2016 Participation at the Jugend Forscht Bundeswettbewerb

2016 First place in the Jugend Forscht Landeswettbewerb. In addition, special prize from the Eduard Rhein Foundation and special prize from DIaLOGIKa
Title: "Informationsdämpfung als Basis eines stochastischen Algorithmus zur Lösung des SAT-Problems"