AMANDA MATTHES

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EDUCATION

10/2019 - 05/2024: University of Oxford - Oxford, UK

PhD student at the EPSRC Centre for Doctoral Training in Autonomous Intelligent Machines and Systems (AIMS CDT)

- Currently working on SnapperGPS, a low-power GNSS receiver for wildlife tracking

- 10-week project with the Satellite Applications Catapult on space debris removal

- Course topics included: signal processing, optimisation, reinforcement learning, AI safety and governance, embedded systems, deep learning, control theory, computer vision, privacy and security, IOT and game theory

- Society involvement: Oxford University Powerlifting Club (2021-2022: Novice Captain), Oxford University Physics Society (2020-2021: Publicity Officer, 2021-2022: Media Officer), Keble College MCR (2021-2022: Arts & Culture Officer, 2022-2023: IT Officer)

10/2015 - 07/2019: University of Heidelberg - Heidelberg, Germany

BSc in Physics - Grade: 1.3*

- BSc thesis topic: Exploiting Instruction-Level Parallelism - Hardware Structures for a Superscalar Out-of-Order Processor

- Course topics included: linear algebra, calculus, hardware design, technical computer science, applied computer science, algorithms and data structures, mechanics, electrodynamics, special relativity, quantum physics and particle physics

- 24 credits $\approx$ 600-700h of laboratory work (executing and documenting over 40 experiments)

09/2017 - 06/2018: University of Manchester - Manchester, UK

Erasmus+ year at the Department of Physics and Astronomy

- Course topics included: quantum computing, applications of quantum physics, philosophy of physics, quantum field theory, lagrangian dynamics, solid-state physics, astrophysics and cosmology, exoplanets and object-oriented programming in C++

- Active member of the Systematic Martial Arts Society and the historical reenactment society Historia Normannis

09/2010 - 07/2015: **St.-Anna-Gymnasium** - Munich, Germany

Abitur (German A-levels) - Grade: 1.4*

- Final exam subjects: Maths, Physics, English, German, Economics and Law
- Seminar thesis on "The idea of light as a wave in the 19th century"
- Awarded the DPG-Abiturpreis by the German Physical Society for outstanding performance in physics

WORK EXPERIENCE

07/2019 - 08/2019: **CERN** - Geneva, Switzerland

Intern at the data centre as part of the CERN Summer Student Programme

06/2019: **ISC 2019** - Frankfurt, Germany

Student Volunteer at the International Supercomputing Conference (ISC) 2019

03/2019 - 05/2019: **Institute for Computer Engineering (ZITI)** - Heidelberg, Germany

Student Research Assistant for the Computer Architecture Group

10/2018 - 03/2019: **University of Heidelberg** - Heidelberg, Germany

Teaching Assistant for the course "Introduction to technical computer science"

SKILLS

Languages	English	Bilingual proficiency
	German	Bilingual proficiency
	French	Elementary proficiency
Coding	Python	Data analysis, data visualisation, application development
	C	Embedded firmware development
	C++	Application development
	Verilog	Hardware design
	LaTeX	Typesetting
Software Skills	PCB design with EAGLE	
	Computer-aided design (CAD) with Fusion 360	
Hardware Tools	Fused deposition modelling (FDM, 3D printing with filament)	
	Stereolithography (SLA, 3D printing with resin)	

Oxford, 2023

*German grades work on a scale of 1.0 to 6.0, with 1.0 being the best.