

Marius Kilian

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London, UK

EDUCATION

2022 - 2023 **Queen Mary University, United Kingdom**

M.Sc. with Distinction, Computer Science

Modules: *Artificial Intelligence in Rich Dynamic Action Spaces, Computational Creativity, Computer Graphics, Interactive Agents and Procedural Generation, Advanced Game Engine Development*

2017 - 2021 **Karlsruhe Institute of Technology, Germany**

B.Sc., Computer Science major, Business minor

CS Modules: *Algorithms, Software Engineering in Practice, Operating Systems, Databases, Statistics*

Business Modules: *Financial Management, Investments, Accounting, Production Economics and Marketing*

EXPERIENCE

2021- 2022 **Swisscom AG, Zurich, Switzerland**

Software Engineer

- Created a working MVP prototype in only 6 months of an AI video support customer service, projecting decrease in customer service hotline utilization by 30%.
- Automated development environment setup, reducing time by 93%, from 4h to 15 minutes.
- Represented my team in cross-team security and reliability meetings every 2 weeks, ensuring continuous cooperation and learning, and staying up-to-date on security standards.
- Identified KPIs and KRIs to ensure a reliability of 99.9% of our service, and implemented user statistics tracking to ensure customer satisfaction.
- Took over lead frontend engineer, onboarding rapidly to ensure a swift transition period of 2 weeks.

ACADEMIC

2024 - **Teaching Assistant – London Business School, UK**

Modules: *Data Analytics for Managers*

2019 - 2020 **Research Assistant – Karlsruhe Institute of Technology, Germany**

Heat distribution in battery designs and simulations with Python scripts. Lowered temperatures by 7%.

2017 - 2020 **Teaching Assistant – Karlsruhe Institute of Technology, Germany**

Taught *Theoretical Fundamentals of Computer Science*, including algorithm runtimes, C++ and Java.

PROJECTS (<https://mariuskilian.github.io/#/portfolio>)

Data Structure Compression	Experimented with an Octree as a ray tracing acceleration structure, created and implemented novel compression techniques, and ran extensive experimentation, getting speeds of down to 2 times of state-of-the-art while reducing memory footprint by up to 5 times.
Playlist Sorting	Developed a feature not existent in Spotify to be able to create tailored playlists from user's data.
Multiplayer Arena Game	Designed and built an online multiplayer game with fully functional net-code, an authoritative server and optimistic feedback.

ADDITIONAL INFORMATION

Language	English (fluent), German (fluent), French (conversational)
Software	C++, C#, TypeScript, Java, Python, Git, Jenkins, Docker, Angular, React, SQL, AWS, Rest API, Agile
Other skills	GRE 170
Positions of Responsibility	Football coach for under-12s, coaching 18 kids twice a week for 90 minutes. Examiner for university students, reading out examination guidelines, ensuring a proper examination environment, and finally grading the exams of 450 students over several days.
Extracurricular	Raised money for awareness and treatment of Cystic Fibrosis, volunteered as youth football coach, performed at non-profit music gigs
Interests	Music-production, snowboarding, board games, chess