

# Maximilian Fuchs MSc.

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## Professional Experience

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### Senior Software Engineer

Software Engineer, employee at *3M Health Information Systems*

From August 2022

June 2020 - August 2022

Germany, Remote

- Developed and maintained a medical natural language understanding platform in Java and XML
- Implemented MLOps workflows in AWS, including building, training, and deploying large models
- Collaborated with cross-functional teams to understand business requirements and translate them into technical solutions
- Mentored junior team members and provided technical guidance to help them succeed in their roles
- Acquired and prepared large medical datasets for use in training and evaluating deep learning models

### Research Assistant, working student at *DE-CIX*

March 2018 – May 2020

Frankfurt, Germany

- Implemented and tested SDN components for production in Python and C
- Wrote technical specification for federal cloud project “Gaia X”
- Performed Data Science tasks for research papers and business intelligence (SDN, System Engineering, Internet Infrastructure)

### Research Assistant, working student at TU Darmstadt, UKP Lab

October 2017 – February 2018

Darmstadt, Germany

- Deployed machine learning models in a production environment
- Contributed to software development projects as part of a scrum team
- Tutored NLP programming classes for graduate students (Java, Python, Java Spring)

### Research Assistant, working student at Telecooperation Lab, TU Darmstadt

February 2015 – March 2017

Darmstadt, Germany

- Developed a microservice based video-streaming application
- Set up virtual network and computing infrastructure
- Developed and compared performance of schedulers for container orchestration using docker swarm and go
- Implemented and designed GUI elements for Microsoft Pixelsense (Java, Python, Java Spring)

### Software development intern, part-time at sofasession GmbH

February 2015 – June 2015

Vienna, Austria

- Implemented signal processing components in C++
- Tested and debugged software components for a real-time audio processing system (C++, Git, JavaScript, HTML/CSS)

## Education

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### Master of Science - Internet- and Web-based Systems

July 2020

Technische Universität Darmstadt (Thesis: Rnd of a cloud video object tracker [Vue.js, Docker, RabbitMQ, OpenCV])

### Bachelor of Science - Network Engineering

March 2016

University of Applied Sciences Carinthia, Austria (Thesis: Rnd of a Shopfront-Editor [backbonejs])

## Skills

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**Responsive Web-Apps** (*Typescript, React, Vue, Svelte, Electron, WebRTC, WebGL*)

**Distributed Web-Services** (*Node.js, NestJS, Python, AMQP, CQRS, Redis, SQL/NoSQL, data warehouse*)

**API Design** (*REST, GraphQL, openAPI, OAuth2*)

**Testing** (*Jest, Puppeteer, device farms*)

**Deployment** (*GCP, AWS, Docker/Kubernetes, CI/CD, serverless, edge computing*)

**Misc** (*cli-apps, data migration, UI/UX design, mentoring*)

**Advocate of:** Functional/reactive programming, QA/test-automation, microservice architecture,  
event sourcing, small + frequent releases