

Michael Lohr

Curriculum Vitae



Skills

Key Skills

- Software Development
- Game Development
- Solutions Architecture
- Problem-solving
- Project Management
- Collaboration



Technical Skills

- Programming Languages: C#, Java, JavaScript, Python, Rust
- Web Frameworks: ASP.NET Core, Play Framework, Vue.js, Flask
- Web Technologies: REST, Websockets, HTML, (S)CSS, Apache2, Nginx
- Databases: MySQL, MSSQL, MongoDB, Redis, PostgreSQL, InfluxDB
- Cloud technologies: Docker, Kubernetes, Amazon Web Services
- Game Development: Unity3D, Godot, OpenTK, Three.js
- Operating Systems: Microsoft Windows, Debian, Ubuntu, Manjaro



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Networks

michael-lohr 
michidk 

Work Experience

STABL Energy GmbH

JUNIOR SOLUTIONS ARCHITECT

Okt 2022 — Present
Munich

STABL Energy develops smart, safe, reliable, and cost-effective battery storage systems.

- Building up and managing the cloud team at STABL
- Designing and implementing a cloud-based system to ingest and analyze large amounts of near-realtime data
- Architecting a platform to control battery storage systems remotely
- Leading the development of FreeRTOS-based IoT devices written in Rust
- Managing enterprise software and network solutions for the different departments

STABL Energy GmbH

CLOUD ARCHITECT, WORKING STUDENT

Jan 2022 — Sep 2022
Munich

- Planned and implemented a fault-tolerant and scalable monitoring/logging architecture inside the AWS Cloud
- Developed software to securely connect microcontrollers to the Cloud

Filics GmbH

PROJECT STUDY: FAULT-TOLERANT CLOUD-BASED MONITORING ARCHITECTURES FOR ROBOTICS

Aug 2021 — Dec 2021
Garching

Filics is a robotic high-tech start-up that builds automated guided vehicles to handle the intralogistical material flow in warehouses.

- Developed a logging/monitoring architecture to monitor the robot fleets
- Developed integrations for the Robot Operating System (ROS)
- Investigated different Cloud Computing solutions for robot/IoT appliances
- Worked out requirements, hardware selection, and installation of wireless communication hardware

Lohr, Jöstingmeier & Partner

DATA PROTECTION OFFICER

Jun 2018 — Present
Puchheim

Lohr, Jöstingmeier & Partner is a German law firm specializing in German and European intellectual property matters. I am overseeing the personal data protection strategy and ensure compliance with data protection laws.

Lohr IT

OWNER

Dec 2015 — Present
Eichenau

Lohr IT is developing software and web experiences.

- Building teams and managing software projects
- Developing web applications and container-based backend software

Amazon Web Services EMEA SARL

SOLUTIONS ARCHITECT INTERN

Oct 2020 — Feb 2021

Munich

Amazon Web Services offers reliable and scalable cloud computing services.

- Worked on different workshops covering topics like Machine Learning and Big Data in the SaaS context
- Directly consulted customers about AWS's cloud offerings and proposed architectures
- Built proof of concepts of cloud architectures for customers

TÜV SÜD Sec-IT GmbH

SOFTWARE DEVELOPER, WORKING STUDENT

Dec 2018 — Feb 2020

Munich

The Cyber Security department of TÜV SÜD creates pragmatic solutions to ensure security on various systems.

- Planned and designed the architecture of a distributed system for the automated detection of security vulnerabilities
- Lead the development of a Microsoft ASP.NET Core-based backend
- Developed microservices to handle large-scale email traffic
- Developed software modules to detect security flaws in IT systems
- Deployed software on a Docker/Kubernetes-based platform in the Microsoft Azure Cloud

Broken Vector UG

FOUNDER & MANAGING DIRECTOR

Jan 2017 — Jul 2020

Eichenau

Broken Vector developed and sold (Virtual Reality (VR)) software as well as 3D models in various online stores.

- Managed a team of three software developers and four artists
- Developed a voxel-based VR design software that was published on the Steam and Oculus store
- Managed and developed new product ideas, prototypes, and final software products
- Managed business and customer relations

Technical University Munich

STUDENT TUTOR

Oct 2016 — Apr 2017

Garching

As a tutor of the course „Fundamentals of programming“, I taught students object-orientated programming in Java.

- Prepared and held lectures about programming to ~25 students
- Corrected exercises and exams

Klinikum rechts der Isar der TU München

INTERNSHIP

Jul 2013 — Aug 2013

Munich

During the internship at the cancer research of „Klinik und Poliklinik für Innere Medizin II“, I mixed chemical compounds and prepared extracted organs for microscopic inspection.

MIPM Mammendorfer Institut für Physik und Medizin GmbH

INTERNSHIP

Jul 2012 — Jun 2012

Mammendorf

MIPM develops medical monitoring systems that are magnetic resonance imaging (MRI) compatible. I worked in the assembly and soldered circuit boards, produced electronic plugs, and prepared casings.

Education

Technical University Munich

MASTER OF SCIENCE (M.SC.), INFORMATICS

2019 — 2022

Garching

The Department of Informatics at TUM is one of the largest and most renowned computer science departments in Germany, and the professors and teaching staff are experts in their respective fields. Students of the master's programs receive a top-level education and can tailor their program to focus in-depth on the topics that interest them most.

- Focused on Internet of Things and Cloud Computing
- In my master's thesis, I presented a novel IaC approach to formulate platform-independent cloud architectures and a transpiler system to deploy to different cloud platforms without platform-specific knowledge (graded 1.0/A+)

Technical University Munich

BACHELOR OF SCIENCE (B.SC.), INFORMATICS: GAMES ENGINEERING

2015 — 2019

Garching

The „Informatics: Games Engineering“ bachelor's degree at TUM is a technically-oriented program for students interested in game development. Games production is a booming industry that is set to grow rapidly in the near future. This new technology is utilized in many industries, including engineering, construction, medicine, and education.

- Focused on Virtual Reality and Machine Learning in the field of Human-computer interaction (HCI)
- Wrote my bachelor's thesis about using smartphones to interact with Virtual Reality (graded 1.0/A+)

Obermenzinger Gymnasium

ALLGEMEINE HOCHSCHULREIFE (HIGHER EDUCATION ENTRANCE QUALIFICATION)

2007 — 2015

Munich

The Obermenzinger Gymnasium München is a state-approved economic and social science grammar school.

- I completed various additional computer science-related courses and activities.
- I held a weekly programming tutorial for other pupils.

Josef-Dering-Grundschule

Elementary/primary school

Until 2007

Certifications

Azure AI Fundamentals

MICROSOFT

May 2021

Azure Fundamentals

MICROSOFT

Apr 2021

AWS Certified Solutions Architect – Professional

AMAZON WEB SERVICES

Feb 2021

AWS Certified Solutions Architect – Associate

AMAZON WEB SERVICES

Feb 2021

AWS Certified Developer – Associate

AMAZON WEB SERVICES

Nov 2020

AWS Certified SysOps Administrator – Associate

AMAZON WEB SERVICES

Dec 2020

DAAD English Language Certificate Level GER C1, UNiCert III, ALTE Level 4

TECHNICAL UNIVERSITY MUNICH

May 2020

Google Cloud Platform: Baseline: Data, ML, AI

GOOGLE

Nov 2019

Advanced Topics in Procedural Content Generation

IT UNIVERSITY OF COPENHAGEN

Aug 2019

Machine Learning

STANFORD UNIVERSITY

Jul 2017

Fundamentals of Digital Marketing

GOOGLE

Oct 2016

Unity Certified Developer

UNITY TECHNOLOGIES

Aug 2016
expired

Apprenticeship as Multimedia Assistant (VBP)

VERBAND BAYRISCHER PRIVATSCHULEN

Jul 2013

LCCI English Language Certificate Level 2 for Business and Commerce

LONDON CHAMBER OF COMMERCE AND INDUSTRY

Jul 2013

Volunteer Experience

Akademischer Gesangverein München e.V.

IT AND NETWORK ADMINISTRATOR

2016 — Present

Munich

- Developed a local network infrastructure supporting more than 200 concurrent users
- Architected and developed a Kubernetes-based cluster for web-based infrastructure and applications

Akademischer Gesangverein München e.V.

BOARD MEMBER, TREASURER

Mar 2017 — Aug 2018

Munich

- Managed 30.000 Euro of financial assets of the club itself and six musical ensembles
- Administrated the club together with seven other board members

Personal Interests

- Programming, Cloud technologies, Game development, Electronics, Drones
- Diving, Skiing, Climbing, Table tennis, Board games