

# Michael Lohr

## Curriculum Vitae



## Skills

### Key Skills

- Software Development
- IoT Engineering
- Cloud Architecture
- Project Management
- Problem-solving
- Collaboration

### Technical Skills

- Programming Languages: C#, Java, JavaScript, Typescript, Python, Rust
- Web Technologies: ASP.Net Core, Vue.js, Next.js, HTML/SCSS, Nginx
- Databases: SQL, MongoDB, Redis, InfluxDB, Microsoft Dataverse
- Cloud Technologies: Docker, Kubernetes, Terraform, Amazon Web Services

### Address

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### Web

🌐 [www.lohr.dev](http://www.lohr.dev)  
📄 [michael-lohr](https://www.linkedin.com/in/michael-lohr)  
🔗 [michidk](https://github.com/michidk)

## Work Experience

### STABL Energy

SOLUTIONS/CLOUD ARCHITECT

Oct 2022 – Present

Munich, Germany

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

- Building and leading the cloud team from the ground up
- Designing and implementing a cloud-based system to ingest and analyze large amounts of near-realtime data
- Architecting an IoT platform to manage battery storage systems remotely and enable easy deployments in the field
- Leading the system administration department, architecting enterprise software and network solutions
- Lead the development of embedded IoT devices written in Rust

### Lohr, Jöstingmeier & Partner

DATA PROTECTION OFFICER

Jun 2018 – Present

Puchheim, Germany

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

### Lohr IT

OWNER

Dec 2015 – Present

Eichenau, Germany

Lohr IT is developing desktop software and web experiences.

- Building teams and managing software projects
- Developing web applications, API services and desktop software

### STABL Energy

CLOUD DEVELOPER, WORKING STUDENT

Jan 2022 – Sep 2022

Munich, Germany

- 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

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

Aug 2021 – Dec 2021

Garching, Germany

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

- Developed a fault-tolerant and scalable monitoring/logging architecture inside the AWS Cloud
- Researched different Cloud Computing solutions for robot/IoT appliances
- Developed integrations for the Robot Operating System (ROS)
- Defined requirements, selected hardware, and installed wireless communication hardware

### Amazon Web Services (AWS)

SOLUTIONS ARCHITECT INTERN

Oct 2020 – Feb 2021

Munich, Germany

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 Independent Software Vendors (ISVs) about AWS's cloud offerings and proposed architectures

- Built proof of concepts of Cloud architectures using the AWS offering for customers

### Broken Vector UG

FOUNDER & MANAGING DIRECTOR

Jan 2017 – Jul 2020

Eichenau, Germany

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 3D artists
- Developed a voxel-based VR design software that was published on the Steam and Oculus store
- Developed new product ideas, prototypes, and final software products
- Managed business and customer relations

### TÜV SÜD Sec-IT

SOFTWARE DEVELOPER, WORKING STUDENT

Dec 2018 – Feb 2020

Munich, Germany

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

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

### Technical University of Munich

STUDENT TUTOR

Oct 2016 – Apr 2017

Garching, Germany

As a tutor for 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 – Jul 2013

Munich, Germany

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.

### Mammendorfer Institut für Physik und Medizin

INTERNSHIP

Jul 2012 – Jul 2012

Mammendorf, Germany

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 of Munich

INFORMATICS – SCORE: 1.6

Dec 2019 – Dec 2022

Garching, Germany

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 of Munich

INFORMATICS: GAMES ENGINEERING – SCORE: 2.4

Dec 2015 – Dec 2019

Garching, Germany

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
- Wrote my bachelor's thesis about using smartphones to interact with Virtual Reality (graded 1.0/A+)

### Obermenzinger Gymnasium

ECONOMIC BRANCH – SCORE: 2.1

Dec 2007 – Dec 2015

Munich, Germany

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

- Completed various additional computer science-related courses and activities
- Organized and gave a weekly programming course for other students

### Josef-Dering-Grundschule

Dec 2007

Eichenau, Germany

## Certifications

<b>AWS Certified Solutions Architect – Professional</b> AMAZON WEB SERVICES (AWS)	Feb 2021
<b>AWS Certified SysOps Administrator – Associate</b> AMAZON WEB SERVICES (AWS)	Dec 2020 <i>expired</i>
<b>AWS Certified Developer – Associate</b> AMAZON WEB SERVICES (AWS)	Nov 2020 <i>expired</i>
<b>DAAD English Language Certificate Level GER C1, UNlcert III, ALTE Level 4</b> TECHNICAL UNIVERSITY MUNICH	May 2020
<b>AWS Certified Solutions Architect – Associate</b> AMAZON WEB SERVICES (AWS)	May 2020
<b>Machine Learning</b> STANFORD UNIVERSITY	Jul 2017
<b>Unity Certified Developer</b> UNITY TECHNOLOGIES	Aug 2016 <i>expired</i>
<b>LCCI English Language Certificate Level 2 for Business and Commerce</b> LONDON CHAMBER OF COMMERCE AND INDUSTRY	Jul 2013
<b>Apprenticeship as Multimedia Assistant (VBP)</b> VERBAND BAYRISCHER PRIVATSCHULEN	Jul 2013

## Volunteering

<b>Akademischer Gesangverein München e.V.</b> IT AND NETWORK ADMINISTRATOR	Dec 2016 – Present Munich, Germany
<ul style="list-style-type: none"><li>• Developed a local network infrastructure for more than 200 concurrent users</li><li>• Architected and developed a Kubernetes-based cluster for web-based infrastructure and applications</li></ul>	
<b>Akademischer Gesangverein München e.V.</b> BOARD MEMBER, TREASURER	Mar 2017 – Aug 2018 Munich, Germany
<ul style="list-style-type: none"><li>• Managed all financial assets of the club itself and six musical ensembles</li><li>• Administred the club together with seven other board members</li></ul>	

## Personal Interests

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