Michael Lohr
Curriculum Vitae

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„Because a Great Idea Is Never Enough"

Summary

Passionate about software development and design, web technologies, distributed systems & IoT, all things containers, DevOps, and game development.

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

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 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

Education

Technical University of Munich
MASTER OF SCIENCE (M.SC.), INFORMATICS – SCORE: 1.6

2019 – 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
BACHELOR OF SCIENCE (B.SC.), INFORMATICS: GAMES ENGINEERING – SCORE: 2.4

2015 – 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+)

Certifications

AWS Certified Solutions Architect – Professional
AMAZON WEB SERVICES (AWS)

Feb 2021

AWS Certified SysOps Administrator – Associate
AMAZON WEB SERVICES (AWS)

Dec 2020
expired

AWS Certified Developer – Associate
AMAZON WEB SERVICES (AWS)

Nov 2020
expired

DAAD English Language Certificate Level GER C1, UNIcert III, ALTE Level 4
TECHNICAL UNIVERSITY MUNICH

May 2020

LCCI English Language Certificate Level 2 for Business and Commerce
LONDON CHAMBER OF COMMERCE AND INDUSTRY

Jul 2013

Apprenticeship as Multimedia Assistant (VBP)
VERBAND BAYRISCHER PRIVATSCHULEN

Jul 2013

Volunteering

Philisterverband des AGV Akademischer Gesangverein München e.V.
IT AND NETWORK ADMINISTRATOR

Apr 2024 – Present
Munich, Germany

- Responsible for all IT systems, used by multiple employees, rental customers and event guests
- Administer the club with more than 600 members, its properties and assets and its eight musical ensembles together with 14 other board members

AGV Akademischer Gesangverein München e.V.
IT AND NETWORK ADMINISTRATOR

Dec 2016 – Present
Munich, Germany

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

AGV Akademischer Gesangverein München e.V.
BOARD MEMBER, TREASURER

Mar 2017 – Aug 2018
Munich, Germany

- Managed all 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, Tennis, Board games