

Sami Alzein

Software Engineer

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Professional Summary

Dedicated Software Engineer with proven expertise in backend development, IoT solutions, and industrial automation. Strong mathematical foundation combined with hands-on experience in building scalable systems at Siemens AG and FinTech solutions at adorsys. Demonstrated ability to deliver innovative technical solutions in complex environments, from Linux-based embedded systems to cloud-native applications. Committed to continuous learning and excellence in software engineering.

Work Experience

Siemens AG

R&D Software Engineer

2022 – Present

Smart Infrastructure

Developing cutting-edge IoT and industrial automation solutions for smart infrastructure. Leading development of Linux-based embedded systems for electric vehicle charging infrastructure, implementing real-time monitoring and control systems for manufacturing processes.

Key Achievements:

- Architected and deployed customized Debian-based operating system for EV chargers at scale
- Developed comprehensive IoT platform using Java, Spring Boot, React, and Kubernetes
- Implemented secure, reliable embedded systems using IMX8Mini, Systemd, and RAUC update framework

adorsys GmbH & CO KG

Software Engineer

2020 – 2022

FinTech

Developed secure financial software solutions serving clients with over 10 billion euros in assets. Contributed to critical banking infrastructure with focus on security, reliability, and compliance.

Key Achievements:

- Built and maintained secure backend systems using Java, Spring Boot, and OAuth2
- Delivered enterprise-grade solutions with Spring Security, Hibernate, JUnit5, and Mockito
- Participated in full-stack development with Angular and deployment automation using Jenkins, Docker, Helm, and OpenShift

Education

Technical University of Nuremberg (Technische Hochschule Nürnberg) 2018 – 2022

Dual I.C.S. Bachelor's Degree in Computer Science

In cooperation with adorsys GmbH & CO KG, Final Grade: 2.0

General University Entrance Qualification

2007 – 2015

Abitur

Final Grade: 1.5 (Issued by German Recognition Office for Foreign Education)

Recognitions & Awards

Germany Scholarship (Deutschlandstipendium)

2020

Technical University of Nuremberg • Scholarship

Merit-based scholarship awarded for academic excellence and potential in Computer Science.

I.C.S. Sponsorship Program Nomination

2020

Technical University of Nuremberg • Academic Honor

Nominated and chosen for the I.C.S. Sponsorship Program recognizing outstanding academic performance in dual study program.

Excellent Academic Performance

2015

General University Entrance Qualification • Academic Achievement

Achieved final grade of 1.5 in General University Entrance Qualification (Abitur).

Technical Skills

Backend	Java, Spring Boot, Spring Security, OAuth2, Maven, Hibernate, Python
Frontend	TypeScript, JavaScript, React, Next.js, Angular, Tailwind CSS
Embedded	Linux, Debian, Systemd, RAUC, IMX8Mini, IoT
DevOps	Docker, Kubernetes, Jenkins, GitLab, Helm, OpenShift
Databases	PostgreSQL, Hibernate ORM
Tools	Git, IntelliJ IDEA, VSCode, VIM, Jira, Confluence
Methods	Agile, Test-Driven Development (JUnit5, Mockito)

Projects

Linux Charger Operating System

Linux, Debian, Python, Systemd, RAUC, IMX8Mini

Designed and developed software to build customized Linux-based operating system for electric vehicle chargers at Scale.

Industrial IoT Platform

Java, Spring Boot, React, PostgreSQL, Docker, Kubernetes

Developed comprehensive IoT solutions for industrial automation at Siemens, enabling real-time monitoring and control of manufacturing processes.

Financial Software Solutions

Java, Spring Boot, Spring Security, OAuth2, Maven, Hibernate

Developed and maintained financial software solutions at adorsys for clients with more than 10 Billion Euros in assets using Java and Spring Boot ecosystem. Focused on secure backend systems

with OAuth2 authentication.

Dual Study Project

Java, Angular, Jenkins, Docker, Helm, OpenShift

Comprehensive software engineering project completed as part of dual study program in cooperation between Technical University of Nuremberg and adorsys.

Personal Portfolio

Next.js, TypeScript, Tailwind CSS, Vercel

Modern portfolio website showcasing my professional work and technical skills. Built with performance and accessibility in mind. sami.alzein.dev

Languages

- **Arabic:** Native
- **German:** Fluent
- **English:** Very Good

Interests

- Social Engagement: Support for refugees, translations, German language learning support
- Volunteering with Mudra (counseling organization)
- Classical Music: Enthusiast of Chopin, Vivaldi, Brahms
- Professional Literature: Andrew Tannenbaum, William Stallings