Ziad Alghawi

Software Engineer | Full-Stack Developer

ziad97alghawi@gmail.com | +49 17613635957 | Germany | ziadalghawi.com | github.com/Ziad-Alghawi

linkedin.com/in/ziad-alghawi

M.Sc. Computer Science student at the University of Passau with 2 years of professional experience in web development. I build and deploy full-stack apps with React, Next.js, Node.js and PostgreSQL, and I work with Docker, CI/CD and Kubernetes. I enjoy taking projects from idea to production, like my live AI study platform Quiz AI. I speak English (C1) and German (B2).

EDUCATION

University of Passau *10/2023 – Present | Passau, Germany*
Master of Science (M.Sc.) in Computer Science
Thesis: Federated learning for automotive cybersecurity risk assessment (ISO/SAE 21434). It predicts risk ratings from 1,587 real threats, and the federated model matched centralized training within 0.01 macro-F1.

Qassim University *01/2017 – 01/2022 | Qassim, Saudi Arabia*
Bachelor of Computer Engineering

PROJECTS

Quiz AI: AI Study Platform *10/2025 – Present*
Next.js 16, React 19, TypeScript, LangChain + Gemini, PostgreSQL (Drizzle), Better Auth, Stripe, Vitest, Docker
- Built and deployed a full-stack app that generates quizzes from course material with Gemini (LangChain), including courses, attempts, statistics, quiz sharing and a guest trial. Deployed on Vercel.
- Wrote unit and E2E tests (Vitest, Playwright) and set up GitHub Actions CI with Docker image scanning, plus a Kubernetes demo with Helm and Argo CD.
- Live demo: quiz.ziadalghawi.com

PraxisForm: Kubernetes Platform *06/2026 – 09/2026*
Team project, Infra X workshop
- Deployed a Spring Boot, Angular and MongoDB app to OVHcloud managed Kubernetes using Helm.
- Built CI/CD with GitHub Actions and GHCR, with GitOps deployment through Argo CD.

PROFESSIONAL EXPERIENCE

Smart Methods

> **Junior Software Developer** *04/2022 – 08/2023 | Riyadh, Saudi Arabia*
> - Built a web interface for a reception robot (greeting visitors, answering questions, coffee ordering) with JavaScript, PHP and MySQL.
> - Integrated IBM Watson Assistant with Speech-to-Text and Text-to-Speech so visitors could talk to the robot by voice.
> - Worked with the mechanical, electrical and AI teams to integrate software with hardware and deliver finished robots.
>
> **Software Developer Intern** *06/2021 – 09/2021 | Riyadh, Saudi Arabia*
> - Developed a web interface to control robotic arm movements.
> - Supported the integration of an IBM Watson chatbot and speech-to-text services.

Saudi Number IT *01/2021 – 06/2021 | Qassim, Saudi Arabia*
Frontend Developer (Part-time)
- Built responsive web interfaces for robot-integrated platforms with HTML5, CSS3 and JavaScript.
- Implemented an AI chatbot interface and its conversation flow to support visitors and answer their questions.

SKILLS

- **Frontend** — React, Next.js, TypeScript, JavaScript, Tailwind CSS, Angular
- **Backend** — Node.js, Express, NestJS, Spring Boot, PHP, REST APIs, PostgreSQL, MongoDB, MySQL
- **DevOps** — Docker, Kubernetes, Helm, Argo CD, GitHub Actions
- **AI/ML** — Python, PyTorch, scikit-learn, LangChain
- **Testing and tools** — Vitest, Playwright, Linux, Git, GitHub, Postman
- **Languages** — English (C1), German (B2)