

Faraz Ahmad

Software Engineer | Full Stack, Cloud & Robotics

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Profile

Software engineer and MSc Computer Science student with 3+ years of experience in software solutions, AI and embedded systems. Work spans backend development, event-driven architectures, cloud services, DevOps, robotics, computer vision and hardware-software integration.

Experience

Software engineering

Software Engineer · Remote | Apr 2025 - Present

- Owned software delivery and technical consulting, from requirements to deployment.
- Built REST APIs, event-driven services and real-time WebSocket integrations for connected robotics systems.
- Developed applications for iOS, Android and Windows with React, React Native and Electron.
- Designed PostgreSQL schemas and migrations; deployed backend services on Google Cloud with testing, documentation and observability.

Robotics engineering

Robotics Software Engineer | Jul 2024 - Mar 2025

- Integrated IoT devices using ESP32 modules and REST APIs.
- Developed ROS C++ nodes for image acquisition and transfer to remote analytics services.
- Worked on soldering, PCB design, hardware repairs and system integration.
- Completed technical robotics training in programming, operation, maintenance, remote support and assembly.

Computer vision research

Researcher · Part-time | Feb 2023 - May 2024

- Researched deep learning and computer vision for autonomous underwater robotics.
- Prepared and annotated more than 5,000 images; trained models on a Slurm HPC cluster.
- Built Gazebo simulations and a ROS 1 / ROS 2 bridge; ported C++ and Python drivers to ROS 2.
- Deployed computer vision models on NVIDIA Jetson Orin.

Education

Georg-August-Universität Göttingen

MSc · Computer Science | Oct 2025 - Present

Specialisation: System Engineering.

Constructor University · Bremen

BSc · Computer Science | Aug 2021 - Jun 2024

Formerly Jacobs University. Teaching assistant in robotics and computer vision. Bachelor's thesis in deep learning and underwater computer vision.

Skills & technologies

Backend: Java, Spring Boot, NestJS, Node.js, Python, Kotlin, REST APIs, WebSocket, JWT, JUnit

Frontend & apps: React, React Native, Next.js, TypeScript, JavaScript, HTML, CSS, Tailwind CSS, Expo, Electron

Cloud & DevOps: AWS (Lambda, EC2, S3), Google Cloud, Docker, Git, CI/CD, Maven, Gradle, Ansible

Embedded & robotics: C/C++, ROS / ROS 2, ESP32, STM32, NXP SDKs, IoT, Gazebo, U-Boot, Yocto, soldering, PCB debugging, Saleae Logic Analyzer, oscilloscopes

AI & data: YOLOv8, TensorFlow, PyTorch, OpenCV, Slurm HPC, dataset preparation and annotation, MySQL, PostgreSQL, Oracle

Methods & systems: Agile, Scrum, test automation, legacy migrations, Clean Code; Debian, Ubuntu, CentOS, Windows, macOS

Additional work

Analytics, CRM and marketing automation: web/server-side Tag Manager, GA4, Consent Mode v2, HubSpot, Brevo, n8n and Make. WordPress, Elementor, ACF, Cloudflare and technical SEO. Google Ads, Meta and LinkedIn conversion setup; B2B email infrastructure, campaign reporting and Playwright QA.

Languages & certification

English (C1) | German (B1) | Urdu (native)

Google Project Management