Mahmudul Islam



Software Engineer · Backend & Full-Stack Developer | Python, TypeScript, AI/LLM

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PROFILE

Software engineer (M.Sc. Computer Science) with **5+ years** of experience building and running production web applications end to end. On the backend I design **REST APIs** and services with **Python/FastAPI** and **NestJS/Node.js** on **PostgreSQL**; on the frontend I build with **Next.js, React** and **SvelteKit**. I integrate **LLM and RAG services** into live products, automate delivery with **CI/CD, Docker and Terraform** on Azure and AWS, and cover my work with automated and end-to-end tests. I enjoy owning features from data model to UI and turning requirements from non-technical stakeholders into clean, maintainable software.

PROFESSIONAL EXPERIENCE

03/2026–present
Software Engineer – Backend & Frontend
CIVIS.digital GmbH · Celle | Python · NestJS · Next.js · PostgreSQL · Jest · Azure · LLM/RAG

- Integrated **LLM and RAG services** into the MeinLeistungsCheck (MLC) chatbot, giving users a quick social-benefits check in plain language.
- Built a central **rule engine** that unifies complex benefit calculations for MLC, an ESF-funded platform, working closely with social workers as non-technical domain experts.
- Own **subscription billing** end to end: relational data model, backend logic and UI.
- Modernised the SO12 dashboard; new features and fixes grew its user base by about **70 %**.
- Introduced **automated and end-to-end tests** with Jest across multiple projects, including SO12 and MLC.

01/2025–02/2026
Software Developer
ICS Sustainable Solutions GmbH · Flensburg | Python · FastAPI · PostgreSQL · SvelteKit · microservices

- Developed and operated **Python/FastAPI microservices**, including deployment, configuration and updates via **GitLab CI**.
- Integrated **Stripe** via REST, cutting checkout time by **80 %**; redesigned the order workflow, raising throughput by **50 %**.
- Built a **SvelteKit** customer portal with improved search.

01/2024–12/2024
Full-Stack Developer (Working Student)
Digital Medical Academy · Stuttgart | React · Azure Functions · Terraform · GitHub Actions · Datadog

- Built a central **login system**, reducing recurring support tickets by about **80 %**.
- Replaced a recurring manual process with a serverless, **event-driven** certificate generation and secure storage pipeline on Azure.
- Set up **Terraform** infrastructure as code, **GitHub Actions** CI/CD and **Datadog** monitoring.

10/2021–09/2022
Web Developer (Student Assistant)
Universität Rostock · Rostock | PHP · MySQL · JavaScript · Linux · Apache

- Replaced a hard-coded publication system with a configurable, **database-backed web portal** that staff maintain without code changes; gathered requirements directly with users and set up and maintained the Linux server stack.

10/2019–10/2023
Freelance Full-Stack Developer
Upwork · remote | PHP · Ruby on Rails · JavaScript · MySQL

- **Top-Rated** with a 100 % Job Success Score across **30+** international clients and **1,800+** hours: web applications, API integrations, data imports and database migrations.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, SQL, PHP, Bash

Frontend: Next.js, React, SvelteKit, HTML/CSS, responsive UI

Databases: PostgreSQL, MySQL, MongoDB; data modeling, schema design & migration

Testing & quality: unit & end-to-end testing (Jest), code review, documentation, Git

Backend & APIs: FastAPI, NestJS, Node.js, REST API design, microservices, RabbitMQ

AI & LLM: LLM integration, RAG pipelines, chatbots (in production at CIVIS.digital)

Cloud & DevOps: Docker, Terraform, Azure, AWS, GitLab CI, GitHub Actions, Datadog, Linux

Integrations: Stripe/payments, third-party APIs, event-driven & scheduled data imports

EDUCATION & MORE

M.Sc. Computer Science
Universität Rostock · graduated 06/2025
Thesis: Reverse engineering existing databases into explicit relational models

CERTIFICATES
HackerRank – SQL, REST API & JavaScript (Advanced)
Top-Rated Web Developer, Upwork

LANGUAGES
English (C1) · German (B1) · Bengali (native)