

# AYUSH MUKHERJEE

## SOFTWARE DEVELOPER



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## Professional Profile

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Full stack developer with 5+ years across frontend, backend DevOps. Experienced in shipping **Svelte** and **React Typescript** SPAs to production. Built cloud-native, AI-assisted tools at Bosch and DLR. I value maintainability by peer reviews, test gates, and **reliable delivery** via Docker/ Kubernetes and clear docs. Comfortable shaping pragmatic architecture and integrating data.

Eager to bring end-to-end product building to your organisation and contribute to it's purpose.

**Primary stack:** React (TypeScript), Svelte, Redux, Node.js, Python (Flask), REST APIs, Docker & Kubernetes, CI/CD (GitHub Actions/Azure), Cypress (E2E/integration testing)

## Work History

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05/2025 – present

### Student Software Engineer

**DLR (German Aerospace Center)** - dlr.de | Ilmenau, Thüringen  
Germany's national center for aerospace and energy research.

**Tech stack:** React.js, RESTful API, Flask, PostgreSQL, Docker, Python

- Developed Material Databank web app with the team, replacing MATLAB workflows and supporting 15+ researchers in material simulation.
- Added simulation and visualization for smoother material analysis accelerating research workflows by 40%.
- Reduced setup time by 90% by Dockerizing the app and documenting installation steps, enabling reproducible installs for a non-technical team.

09/2024 – 02/2025

### DevOps Engineering Intern

**Bosch Homecomfort GmbH** - bosch-homecomfort.com | Stuttgart  
Europe's leading provider of residential and commercial energy solutions

**Tech stack:** Docker, React.js CI/CD, Kubernetes, Terraform, Prometheus

- Cut user onboarding time by 40% by Dockerizing the tool and automating deploys with GitHub Actions & Azure Kubernetes Services.
- Improved reliability and data security by rolling out CI/CD with tests, IP whitelisting, and secure key management.
- Scaled infrastructure by almost 60% by automating Kubernetes with Terraform and enabling auto-scaling for high availability.
- Minimised MTTR by 35% by launching Prometheus, Grafana & ELK.
- Hosted team events for knowledge-sharing on new tech and AI trends.

- 08/2023 – 08/2024 **Applications Engineer (Working Student)**  
**Bosch Rexroth AG** - boschrexroth.com | Fellbach, Germany  
Global leader in industrial automation and motion control solutions  
**Tech stack:** Svelte, React.js, Flask, Node.js, Kafka, ctrlX Core, IoT
- Implemented SPA solutions for clients and authored documentations.
  - Integrated Node-RED flows with Kafka for real-time data processing, improving system responsiveness.
- 05/2022 – 08/2023 **Software Development Intern**  
**Bosch Engineering GmbH** - bosch-engineering.com | Abstatt, Germany  
Leading automotive and industrial applications solution provider  
**Tech stack:** Svelte, Node.js, MongoDB, Microservices, Cypress, Mocha
- Boosted UI speed 40% by building reusable Svelte components.
  - Decreased API response times through Node.js and MongoDB optimisation.
  - Wrote test scripts using Cypress, Chai and Mocha reducing production bugs.
- 11/2020 – 02/2022 **Associate Software Engineer (Full Time)**  
**Indus Net Technologies Pvt. Ltd.** - indusnet.co.in | Kolkata, India  
India's leading digital transformation and web development agency.  
**Tech stack:** Next.js, Node.js, MongoDB, PostgreSQL, Microservices
- Built 3 full-stack Web apps with cross-functional teams, improving UX and on-time delivery for enterprise clients (incl. Pharma and automobile).

## Education

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- 10/2021 - 11/2025 M.Sc in Research in Computer And Systems Engineering  
Technische Universität Ilmenau  
Ilmenau, Thüringen
- 08/2017 - 08/2020 B.Sc. in Computer Science  
Maulana Abul Kalam Azad University of Technology  
Kalyani, India

## Additional Skills & Interests

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### Languages

- English (C2), German (B1 ongoing)

### Interests

- I enjoy building side projects such as browser extensions, AI Agents and IoT tools that streamline daily life.
- I regularly attend hackathons and won one at Fraunhofer by developing AI tools.