

# GAURAV KULKARNI

Phone: +49 15566152631 | Address : In Der Au , Stuttgart

Portfolio | kulkarnigaurav38@gmail.com | linkedin.com/in/gauravlin/ | github.com/kulkarnigaurav38

A collaborative Software Engineer with 3 years of experience applying strong problem-solving skills to full-stack web development. I enjoy working in agile teams to tackle challenges across the stack, from backend architecture to intuitive UIs, with a current focus on leveraging AI to create smarter user experiences.

## SKILLS

- **Programming Languages** : Java, Python, C++, TypeScript, JavaScript, HTML, CSS
- **Backend & Data** : RESTful APIs, Spring Boot, Node.js, Django, Microservices, SQL Databases (PostgreSQL, MySQL), NoSQL (MongoDB, Redis), gRPC, Apache Kafka, pgvector
- **Frontend & Testing** : React.js, Angular.js, Unit Testing (JUnit), Karate
- **DevOps, Cloud & Tools** : Docker, Kubernetes, CI/CD, GitHub Actions, Git, agile (Scrum), Linux
- **Spoken Languages** : English (C1 - Proficient), German (B1 - Intermediate; B2 in progress)

## EXPERIENCE

### IONOS SE

June 2024 – Present

Working Student QA Engineer Cloud & Master's Thesis Candidate

Karlsruhe , Germany

- For my Master's Thesis, architecting an automated test case generation system using a RAG pipeline and prompt engineering (Python, FastAPI, pgvector), projected to reduce manual test creation time by 30%.
- Influenced the QA team's Software Quality Assurance (SQA) strategy by delivering a comparative analysis of AI tools, leading to the development of a new Karate-based test automation framework.

### Open-Source Contributions

July 2024 – December 2024

Independent Contributor

Remote

- Contributed an accepted feature to the Rocket.Chat open-source project (Electron.js), successfully passing rigorous code reviews in a large, collaborative codebase.
- Engineered a secure, modern authentication module for a personal project, implementing passwordless login with Passkeys and OAuth 2.0 for social identity providers.

### Genpact

March 2023 – January 2024

Software Developer Intern & Software Engineer

Bengaluru , India

- Reduced AP invoice processing time by 15% using Celonis process mining and PQL-based KPIs; also earned Celonis Certified Technical Expert certification.
- Engineered and deployed a conversational chatbot for social networks (Dialogflow, React.js); established CI/CD pipelines with Docker and worked with teams to troubleshoot production issues.

### Karo Technology

August 2022 – January 2023

Java Spring Boot Developer Intern

Remote

- Architected scalable backend Microservices using object-oriented programming with Java and Spring Boot, delivering investment insights via RESTful APIs (JSON).
- Ensured code reliability and simplified deployments by implementing comprehensive JUnit tests and containerizing the full application with Docker.

## EDUCATION

### Hochschule für Technik Stuttgart

March 2024 – Present

Master's in Software Technology , GPA - 2.14/4

Stuttgart , Germany

### R.V. Institute of Technology and Management

August 2019 – May 2023

Bachelor's in Computer Science and Engineering , GPA - 8.14/10

Bengaluru , India

## PROJECTS

### GWBASIC-to-C Compiler | Master's Coursework | JavaCC, Java

June 2024

- Designed and implemented a full compilation pipeline using JavaCC, including a custom lexer, parser, and Abstract Syntax Tree (AST) to translate legacy GWBASIC into modern C code.
- Demonstrated core Computer Science fundamentals by successfully managing complex parsing and code generation logic from the ground up.

### 'FarmiLedger' | Bachelor's Thesis | Solidity, Node.js, React.js, Ethereum Blockchain, MongoDB

May 2023

- Developed a real-time, decentralized auction system for agricultural produce using an Ethereum blockchain and MERN stack.
- Engineered gas-efficient Solidity smart contracts to manage the auction lifecycle and create an auditable record of crop provenance, solving price opacity in agricultural supply chains.

### 'BrainML' | Smart India Hackathon | Python, Dipy, TensorFlow, BrainSuite, Bootstrap, Node.js, MongoDB

August 2022

- Engineered an end-to-end machine learning solution to predict depression risk from MRI scans, achieving 90-95% accuracy on a clinical dataset.
- Integrated the model into a Node.js backend for real-time prediction, utilizing BrainSuite for automated Region of Interest (ROI) extraction.
- Achieved national recognition by securing 2nd place in the NIEPMD Ministry category.

## RESEARCH PUBLICATIONS

### Technical Survey on Blockchain Technology Protocols and Applications

IRO Journal 2020

Journal Publication