Ayush Gupta

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EDUCATION

Rheinland-Pfälzische Technische Universität **Kaiserslautern, Germany**
M.Sc. Computer Science *October 2023 – present*

Manav Rachna University **Faridabad, India**
Bachelor of Technology in Computer Science Engineering *July 2017 – April 2021*

EXPERIENCE

Associate Software Engineer **January 2021 – September 2023**
Unthinkable Solutions *Gurgaon, India*

- Designed and launched a high-performance **Know Your Customer (KYC)** system using **Apache Kafka**, enabling a smooth **Merchant Onboarding**.
- Developed and deployed **REST APIs** with **Java microservices**, achieving response times under **150ms**.
- Reduced false positives in KYC checks by **15%** through optimized **data validation rules**.
- Executed unit and integration testing with **95%** code coverage, reducing production bugs by **50%**.
- Partnered with cross-functional teams to develop, test, and deploy robust, scalable software solutions for clients.

Java Intern **November 2020 – January 2021**
TechChefz *Noida, India*

- Resolved critical **APIs** and backend issues, improving overall system stability by **30%**.
- Wrote **50 test cases**, maintaining **99%** accuracy in code updates and reduced post-release issues by **35%**.

PROJECTS

Merchant Onboarding Platform | *Spring Boot, GraphQL, REST, Kafka, OCR, MongoDB, Docker*

- Developed **APIs** using **Spring Boot**, **GraphQL**, and **REST** for **SaaS** integration, supporting **5,000+** users with **99.99%** uptime.
- Reduced onboarding time from **2–3 days** to **30–40 minutes** via asynchronous processing of verification steps.
- Integrated **third-party OCR** for document verification, improving data extraction efficiency by **40%**.
- Implemented **Kafka messaging** queues for **asynchronous** task handling, increasing user engagement by **25%**.

eVyapaar | *Spring Boot, PostgreSQL, Agile*

- Engineered a service in an **agile environment** for **1,000+ merchants**, boosting financial tracking accuracy by **30%**.
- Implemented **real-time payment tracking** with **Spring Boot** and **PostgreSQL**, reducing discrepancies by **20%**.
- Introduced an **automated invoicing** feature, reducing manual workload by **50%** for merchants.

WebApp Farmbot | *Node.js, ReactJS, MongoDB*

- Designed an intuitive **field map UI** to visualize the **real-time position of autonomous bots**, enhancing operational visibility for farmers.
- Developed the **dashboard interface** for monitoring bot activities, job status, and field metrics.
- Engineered backend services to **automate seeding tasks**, reducing manual intervention and increasing efficiency.
- Implemented notification services to **alert farmers about job completions and field updates**, improving user engagement.

Fine-tuned LLM for German–French Translation | *LoRA, GenAI, PEFT, Groq API*

- Achieved a **BLEU score** from **0.25 to 2.40** using **LoRA fine-tuning** and **GenAI**-based data augmentation.
- Scaled training data by **200%**, generating **1,400+ synthetic translation pairs** with a **32B LLM** via the **Groq API**.

Technical Skills

Languages: Java, JavaScript, Python
Database: SQL, NoSQL, PostgreSQL, MongoDB
Cloud: Docker, Kubernetes, AWS
Frameworks: Spring Boot, Spring Data JPA, Hibernate, ReactJS, JUnit, Node.js
Developer Tools: GitHub, BitBucket, IntelliJ-IDEA, Maven, Gradle
Libraries / Testing Tools: Mockito, JUnit
Machine Learning: GenAI, Data Preprocessing, Parameter-Efficient Fine-Tuning(PEFT), Language Model Fine-tuning (LoRA)
Other Technologies: OOP, Data Structures, REST APIs, GraphQL, Microservices, CI/CD, Apache Kafka, Agile, Scrum, Jira, Confluence, Grafana
Non Technical: Troubleshooting Expertise, Code Review & Optimization, Analytical Reasoning, Rapid Learning & Adaptation, Team Collaboration

Language Skills

English: Fluent (C1)   **German:** Elementary (A2)   **Hindi:** Native

Certificates

Oracle Certified Associate Java Programmer