

EXPERIENCE

•Software Engineer (AI & Data)

March 2024 -

Cognitive Customer Experience Divison, **Rakuten Mobile**

Tokyo, Japan

- Developed **low latency API's** for a chat interface leveraging **Azure OpenAI** to generate SQL queries from natural language input and to execute them on multiple databases and scaled it to **100 TPS**.
- Implemented **Retrieval Augmented Generation (RAG)** to enhance the accuracy and relevance of LLM responses by integrating external & internal knowledge sources that improved relevance by **30 percent**.
- Authored the HLD of **rApps** that directly impact the customer experience of **100K customers**
- Containerized and deployed mutiple microservices on BM Servers for fast deployment of in house tools
- **Technologies used** : Python, Docker, FastAPI, Azure OpenAI, Pyspark.

•Technology Summer Intern

June-August, 2022

Fiserv India

Chennai, India

- Built Python-based email automation to notify vendors of payment status, reducing manual effort of **20 Hrs** per week and improving vendor satisfaction.

PATENTS

EXPLAINABILITY FRAMEWORK FOR ANALYZING MOBILE SUBSCRIBER DATA USAGE REDUCTION DUE TO LOCATION BASED NETWORK COVERAGE VARIATIONS April 25, 2025.

(U.S. Patent , Under Review)

- Built an AI-based system for early identification of customer engagement drops, leading to a patent submission and actionable insights for user retention

EDUCATION

•Indian Institute of Technology, Kharagpur

2019-23

Bachelor of Technology, Electrical Engineering / AI & Applications

GPA: 8.43/10

PROJECTS

•Agile Notes | GitHub

FullStack Project

- A quick note taking application where a user could write down and save text.
- Developed the backend in NodeJS using Express and Mongoose as ORM for MongoDB.
- Used jwt, bcrypt for authentication of the user and encryption of the password.

•Stock Market Prediction | GitHub

MachineLearning Project

- Developed a Stock Market Prediction model based on LSTM recurrent neural network that will predict the open prices for the next 20 days. Used Google stocks data for the project.

SKILLS

Programming Languages: Python, C++, C

AI/ML: NLP, Azure OpenAI, RAG architecture, PySpark, Qdrant, Information retrieval, Indexing

Systems & Scalability related: Docker, Bare-metal deployments, Microservices, SQL, Git, Github, Linux, Google Cloud Platform

AWARDS AND ACHIEVEMENTS

Competitive Programming - 4 Star coder at **CodeChef**, MaxRating **1901**

JEE - Secured a rank of 2910 in JEE advanced examination among 1.6 lakh students who appeared for the exam. Secured 99.63 percentile in JEE mains examination among 10 lakh students.