BHARAT KUMAR SHARMA

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Codeforces Profile   Leetcode Profile   Codechef Profile

Education

KIET Group Of Institutions — Aug, 2019 – Aug, 2023
Bachelor of Technology in Computer Science and Engineering — *89.4%*

Experience

Infosys — **October 2023 – Present**
Specialist Programmer (Java Full Stack and AI) — *Hyderabad, India*

- **Customer Retail and Logistics Team:** Engineered robust and scalable **REST** and **GraphQL APIs** using **Java** with the **Spring Boot framework**. **Designed and implemented caching mechanisms using Redis**, enhancing response times for frequently accessed data. **Implemented schedulers to precompute data**, reducing on-the-fly computation time and lowering application latency by **30%**. Participated in **architecture design meetings with technical architects**, contributing to system design and scalability discussions. Contributed to **Proof of Concepts** for fine-tuning an open-source **Large Language Model** utilizing **PyTorch**, **Python**, and **Jupyter Notebook** for **code generation and completion**. Also, worked on various **POCs** involving **NLP and ML**.
- **Customer Information System Team:** Led the end-to-end development of a **Retrieval-Augmented Generation (RAG)-powered chatbot** to assist **Site Reliability Engineers (SREs)** in troubleshooting and issue resolution. Designed the **system architecture** and implemented **RESTful APIs** using **Python Flask and FastAPI**, ensuring seamless interaction with the chatbot. Integrated and optimized the **Mistral-7B-v0.1 LLM** with **Milvus and Qdrant vector databases** for **efficient data retrieval and response generation**. Enhanced chatbot **throughput by 200%** through **optimizations in query processing, vector search efficiency and system scalability**. .
- **National Broadband Network co. :** Led the end-to-end development of an **automation tool** for image-based information retrieval and classification, ensuring **structured and meaningful data extraction**. Designed and labeled datasets using **Roboflow** and implemented **YOLOv8** for image classification in **Python** and **Jupyter Notebook**. Integrated **OCR** technologies such as **Python-Tesseract** and **EasyOCR** to extract text from images. **Optimized system performance**, increasing **throughput by 100%** through enhancements in model efficiency and processing pipelines. Currently developing automation tools leveraging **Agentic AI** with **CrewAI**, **LangFlow** and **LangChain** to enhance AI-driven workflow automation.

Plutonic Services — **August 2021 – Feb 2022**
Mobile Application Developer — *Remote*

- Assisted in development of various cross-platform mobile applications using **Flutter** framework and **Dart**.
- Collaborated with team members using version control systems such as **Git** to organize modifications and assign tasks.
- Boosted application **performance** through **optimization** strategies, employing **problem-solving skills** and collaborative brainstorming which reduced the load time by almost **50%**.

Projects

Training And Development App | Google Playstore | Apple Store

- A cross-platform app that serves more than **1,00,000 users** and around **20** educational centers was developed as a **one-stop solution** to create an online academy for teaching and building a community.
- Developed the frontend of the application using **Dart** and the **Flutter** framework.
- Utilized various state management libraries **GetX** and **rxDart** for asynchronous programming and efficiency.

Skills Summary

Languages: C/C++, Java, Dart, Python, HTML/CSS, JavaScript, SQL
Developer Tools: VS Code, Jupyter Notebook, Ollama, Eclipse, Postman, Android Studio, IntelliJ. Anaconda, Jira, Trello
Technologies/Frameworks: Spring Boot, Mockito, JUnit, Redis, LangChain, LangGraph, LlamaIndex, Pytorch, Hugging Face, Microsoft Azure, Machine Learning, Deep Learning, Natural Language Processing, MongoDB, Selenium
Relevant Coursework: Data Structures, Algorithms Analysis, Database Management System, Artificial Intelligence, Object Oriented Programming, Operating Systems, Design Patterns, Generative AI

Achievements

- Global rank of **725** and All India Rank of **40** in **Google Code Jam** Qualification Round 2022.
- Global rank of **1294** and All India Rank **890** in **Google Kickstart** Round A March.
- All India Rank under **1000** in **Meta Hackercup** 2022 in Round 1 and Round 2.
- Global rank **1950** and **383** in Round 1 and 2 of **TCS Codevita** 2022, respectively.
- Global rank of **70** and **93** in **GeeksforGeeks Job-A-Thon 5 and 7**, respectively.
- Global rank of **196** and **346** in **Codechef Contests**.