Suhas Venkata Karamalaputti

7337640385 Email Linkedin Github Portfolio

Education

PES University **September 2022 - Present**
Bachelor of Technology in Computer Science & Engineering - CGPA : 8.06 *Bengaluru, Karnataka*

Geetanjali Olympiad School **June 2020 - July 2022**
12th CBSE Boards : 86% *Bengaluru, Karnataka*

Delhi Public School Bangalore East **June 2007 - May 2020**
10th CBSE Boards : 90% *Bengaluru, Karnataka*

Experience

Centre of Cognitive Computing and Computational Intelligence **June 2025 - August 2025**
Summer Research Intern *Bengaluru, Karnataka*

- Built a career advisory platform that analyzed 30,000+ job postings & descriptions and 90,000+ courses, identifying skill gaps & recommending relevant skill-sets with a precision of almost 0.98.
- Optimized DSSM(Deep Structured Semantic Model) achieving a training loss of 0.08 & validation loss of 0.04.

Projects

AI-Powered Career Skill Gap Analysis & Recommendation | *Python, ChromaDB, DSSM, Streamlit* **July 2025**

- Integrated all-MiniLM-L6-v2 embeddings with DSSM to improve semantic search and skill-course alignment.
- Delivered course recommendations achieving 0.98 precision by matching user skills with job-specific requirements.

Distributed Systems Cluster Simulator Framework | *Python, Docker, REST API, Streamlit* **May 2025**

- Developed a lightweight, simulation-based system that mimics core Kubernetes functionalities like resource allocation & container scheduling.
- Orchestrated fault tolerance, system recovery, and workload distribution to illustrate distributed computing principles.

AI-Powered Regulatory Mining Intelligence Bot | *Python, Sentence Transformers, MongoDB* **April 2025**

- Built a legal chatbot using NLP to retrieve and interpret mining laws, compliance rules, and regulations.
- Applied Sentence Transformers for contradiction detection and semantic search across regulatory documents.

Blockchain-Powered AI Healthcare Insights | *Python, IPFS, Multi-Chain Blockchain, Ollama* **March 2025**

- Linked electronic health records (EHR) stored on IPFS to blockchain IDs to ensure data integrity and traceability.
- Applied OCR and Ollama on patient histories to accelerate clinical decisions, predict drug interactions, and recommend treatments.

IoT-Enabled Arduino-Based Intruder Detection and Alert System | *Arduino, C++, GSM* **April 2024**

- Engineered a C++ system with ultrasonic sensors to trigger LED, buzzer, and GSM alerts on intrusion detection.
- Achieved <100ms response time with real-time serial communication for rapid security notifications.

Cloud File Transfer System using UDP | *Python, UDP, Socket Programming, SSL, File Handling* **March 2024**

- Designed a UDP-based client-server system supporting upload, download, file listing, and remote execution for files up to 100MB.
- Enabled multi-client support with parallel commands and IP handling for 5+ concurrent users.

Technical Skills

Languages: Python, R, C, C++, Java, Rust
AI/ML: TensorFlow, PyTorch, Scikit-learn, NLTK, SpaCy, Matplotlib, LLM, Seaborn
Databases: SQL, MongoDB, ChromaDB
Tools / Platforms: GitHub, Docker, Kubernetes, Vscode, Jupyter, Google Colab, Numpy, Pandas, Selenium, Streamlit
Operating Systems: Windows, Ubuntu, Linux

Achievements

Heal-O-Code Hackathon: Secured Top 6 out of 50+ teams by building AI based healthcare decision support tool.

MRD Scholarship: Awarded the prestigious MRD Scholarship in 1st Semester, receiving a 20% tuition fee reimbursement.

Distinction Scholarship: Received the Distinction Scholarship of Rs.2000 for achieving SGPA > 7.75 in Semesters 2-6.

Kaggle: Ranked in the top 30% on Kaggle college hackathons for Data Analytics and Machine Learning coursework.