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*

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 | *Python, Sentence Transformers, ChromaDB, DSSM, Streamlit* **July 2025**

- Integrated all-MiniLM-L6-v2 embeddings & DSSM to enhance semantic search & course recommendations for skill gaps.
- Recommended targeted courses to bridge skill gaps by aligning user competencies with job-specific requirements.

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

- Developed a lightweight, simulation-based system that mimics core Kubernetes cluster management functionalities
- Created a simplified yet comprehensive platform for showcasing key distributed computing concepts such as resource allocation, fault tolerance, and system recovery.

Regulatory Mining Intelligence Bot | *Python, Sentence Transformers, MongoDB, Streamlit* **April 2025**

- Developed a legal chatbot leveraging NLP to interpret mining laws, regulations, & compliance guidelines, enabling dynamic retrieval of relevant provisions in response to user queries.
- Used Sentence Transformers to detect contradictions & fetch mining law documents via semantic search.

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

- Extracted insights from IPFS-stored EHR's using unique blockchain ID's to ensuring data integrity & traceability.
- Applied OCR & Ollama to patient histories leading to faster clinical decisions, predicting adverse drug-drug reactions & recommending treatments.

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

- Built a C++ based setup using ultrasonic sensors, triggering alerts via LED, buzzer, & GSM.
- Achieved near-instant detection < 100 ms with real-time serial communication, ensuring quick & reliable security alerts.

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

- Built a Python-based UDP client-server system supporting upload/download/listing & remote execution, handling files upto 100MB.
- Implemented dynamic IP handling and parallel command support, enabling 5+ concurrent clients.

Technical Skills

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

Achievements

Heal-O-Code Hackathon **Mar 2025**

- Secured **Top 6 out of 50+ teams** by building a **Blockchain & ML based healthcare decision support tool**.

MRD Scholarship **April 2023**

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

Distinction Scholarship **August 2025**

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