# Suhas Venkata

Education

**PES** University

September 2022 - Present

Bachelor of Technology in Computer Science (CGPA: 8.06)

Bengaluru, Karnataka

#### Experience

## Centre of Cognitive Computing and Computational Intelligence

June 2025 - August 2025

Research Intern

Bengaluru, Karnataka

- Built an NLP-based career advisory platform that analyzed 30,000 job descriptions and 96,000+ courses, identifying skill gaps with 0.98 matching accuracy.
- Optimized DSSM(Deep Structured Semantic Model) achieving a training loss of 0.08 and validation loss of 0.04.

## **Projects**

Block chain-Powered Healthcare Insights | Python, IPFS, Multi-Chain Blockchain, Streamlit

March 2025

- Extracted insights from IPFS-stored EHRs using unique blockchain IDs to ensure data integrity and traceability.
- Applied OCR and Ollama to patient histories leading to faster clinical decisions, predicting adverse drug-drug reactions and recommending treatments.

Regulatory Mining Intelligence Bot | Python, Sentence Transformers, MongoDB, Tkinter GUI

**April 2025** 

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

Alarm Burglar System using Arduino | Arduino, C++, SoftwareSerial, Ultrasonic Sensor

**April 2024** 

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

Cloud Storage Using UDP | Python, UDP, Socket Programming, SSL, File Handling

March 2024

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

AI-Powered Career Skill Gap Analysis | Python, Sentence Transformers, ChromaDB, DSSM, Streamlit

July 2025

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

#### **Technical Skills**

Languages: Python, C, C++, Java, Rust

Frameworks/Libraries: TensorFlow, NumPy, Scikit-learn, Spring Boot, NLTK, SpaCy, PyTorch

Tools/Platforms: Git, Docker, Kubernetes, SQL, VSCode, Jupyter, Colab

Operating Systems: Windows, Ubuntu, Linux

#### Achievements

#### Heal-O-Code Hackathon

March 2025

• Top 10 out of 50+ teams in Heal-O-Code Hackathon (built a healthcare decision support tool using block-chain and ML).

#### MRD Scholarship

March 2023

• Awarded the prestigious MRD Scholarship in 1st Semester at PES University, receiving a 20 percent tuition fee reimbursement.

# Distinction Scholarship

August 2025

• Received Distinction Scholarship of Rs.2000 for achieving SGPA above 7.75 in semester 2-6 at PES University.