Yagnesh Mangali

(716) 345-9707 | yagneshub23@gmail.com | linkedin.com/in/yagnesh-mangali/ | github.com/YagneshMangali

Education

University at Buffalo, The State University of New York — Buffalo, NY
Master of Professional Studies in Data Science and Applications: CGPA- 3.7/4.0 — *Aug 2023 – Dec 2024*
Coursework: *Machine Learning, Database Management Systems, Statistical Data Mining, Data Intensive Computing.*

Vidya Jyothi Institute of Technology — Hyderabad, India
Bachelor of Technology in Artificial Intelligence: CGPA - 8.5/10.0 — *May 2019 – Jun 2023*
Coursework: *Computer Vision, Deep Learning, Natural Language Processing, Neural Networks, Data Structures.*

Technical Skills

Languages: Python, SQL, R, Java, C/C++, HTML/CSS
Libraries & Frameworks: Pandas, NumPy, Scikit-learn, Keras, Matplotlib, Streamlit, TensorFlow, PyTorch.
ML & AI: NLP, GBM, Isolation Forest, XGBoost, Anomaly Detection, Pattern Recognition, GANs, Transformers.
Big Data & Cloud: Hadoop, Spark(Core, SQL, Pyspark), AWS, GCP, Azure.
Data Science & Analysis: EDA, Predictive Analytics, Feature Engineering, Statistical Analysis, Tableau, Power BI.

Experience

Atronous.ai Inc — Milpitas, CA
Software Engineer Intern — *Feb 2025 – Present*

- Spearheaded an **AI agent** leveraging **OpenCV** for schematic image segmentation, **PyTesseract** for text extraction, and PyMuPDF for PDF processing, driven by **Gemini AI**, achieving **90%** labeling accuracy across 50+ pages
- Developed structured output in JSON format for seamless integration with **LLMs** like Phi-4, Llama, Qwen, and Mistral, reducing data preprocessing time by **40%** and enhancing model processing efficiency
- Optimized token utilization using **BERT embeddings**, reducing token consumption by **20%** while enhancing the contextual comprehension for AI-driven document analysis.

Elico Healthcare Services — Hyderabad, India
AI/ML Engineer — *July 2022 – June 2023*

- Constructed AI models using **Autoencoders** and **Random Forests** for managing patient data and predictive analytics, succeeding a **92%** accuracy in early disease diagnosis.
- Integrated **OCR** technology to extract and analyze patient data from scanned documents and medical records, restructuring data processing efficiency by **40%**, communicated findings and advancements to stakeholders.
- Achieved a **20%** increase in diagnosis accuracy through advanced pattern recognition, resulting in an F1 score of **0.85** by demonstrating creativity and engagement.
- Introduced AI-driven automation and deployed predictive models using Docker, enhancing clinical efficiency by **25%**, reducing manual processing time by **30%**, and minimizing deployment and administrative errors by **15%**.

Recordent — Hyderabad, India
AI/ML Engineer — *June 2021 – June 2022*

- Took initiative to engineer AI/ML models using **GBM** and **LSTM** for trading strategy optimization, increasing performance by **15%** and Diminishing computational time by **25%**.
- Elevated financial operations by creating advanced algorithms, including **Isolation Forest** and **XGBoost**, for **fraud detection** and **risk assessment**, Achieved a **20%** increase in accuracy and a **15%** decreasing in false positives.
- Streamlined daily operations and developed automated risk management solutions, cutting down operational breaks by **20%** and saving **10 hours per week**.
- Collaborated with a team to reduced computational time by **25%** through optimizing feature selection and hyper parameter tuning processes, allowing for faster model deployment and overhauled efficiency in handling large datasets.

Projects

SQL Generation With Gemini | *Gemini, Streamlit, MySQL, python-dotenv* — Aug 2024

- Developed a **Streamlit-based chatbot** integrates Google's Gemini **Generative AI model** for dynamic SQL query generation and data summarization, decreasing query response time by **40%** and enhancing user interaction.

Fraud Detection | *Python, Scikit-learn, Imbalanced-learn, Spark* — Apr 2024

- Designed and fine-tuned ML models for detecting fraudulent transactions in an imbalanced dataset. Took charge of applying **SMOTE** and under sampling, revised detection accuracy by **35%** and minimized false positives by **20%**

AI Integrated Drone | *YOLO v5, OpenCV, Python, Matplotlib* — Mar 2023

- Led a team in utilizing the **YOLO v5** deep learning framework for real-time object detection of pedestrians and vehicles in live video feeds from a surveillance drone, attaining **85%** detection accuracy.