Mitra Varun Gogulapati

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EDUCATION

Kakatiya Institute of Technology and Science December 2020 – May 2024

B.Tech. Electronics and Communication Engineering (GPA: 8.5/10.0)

Coursework: Artificial Intelligence, Machine Learning, Deep Learning, Data Science, Data Structures and Algorithms,Image Processing, Internet of Things

EXPERIENCE

Foxconn Interconnect Technology June 2024 – February 2025

Automation Engineer – Automation and Development team

- Managed IP address assignments and ensured seamless connectivity across 100+ machines, switches, gateways, and server rooms. Monitored network performance to identify and resolve bottlenecks, ensuring 99% uptime.
- Diagnosed and resolved complex network issues impacting factory operations, including gateway connectivity. Analysed data from Factory Metrics and SightX using **Power BI** and **Excel** to monitor machine performance, and generate reports.
- **Designed** a data visualisation application using **Python**, **Plotly Dash**, and **SQL** to create interactive dashboards for real-time monitoring and analysis of industrial and machinery data.
- Implemented network optimisation strategies, improving data flow and reducing downtime across factory systems. Integrated insights from Power BI and Excel to enhance monitoring and decision-making efficiency.

Predict Ram March 2024 – May 2024

Data Analytics Intern

- Performed in-depth data analysis using Python and **Pandas** to extract insights, optimise strategic planning, and guide product decisions. Designed **data visualisations** to highlight key trends and improve stakeholder understanding.
- Proposed **machine learning solutions** using scikit-learn to enhance predictive capabilities and decision-making. Integrated models into **interactive applications** with Streamlit and Tkinter for seamless user interaction.

National Institute of Technology and Science March 2023 – May 2023

Machine Learning Intern

- Conducted research on the efficiency of various 5G systems, employing machine learning algorithms for in-depth analysis.
- Successfully developed diverse neural network models to comprehend and optimize system performance. It surged to a 98% accuracy using powerful machine learning algorithms, while simultaneously catapulting system efficiency to 89%.

PROJECTS

Classification of Autism Spectrum Disorder using CNN | *TensorFlow, Python, Nilearn*

- Leveraged the Nilearn and Nibabel packages to extract neuroimaging data from BIDS files, resulting in a 20% enhancement in data extraction efficiency.
- Implemented a Convolutional Neural Network (CNN) model, achieving a significant 15% boost in brain tumour classification accuracy through precisely segmented identified regions.

Transformer-Based Vision Model for Real-Time Industrial Defect Detection | *Hugging Face, Vision Transformer (ViT), ONNX*

- Developed and fine-tuned a Vision Transformer model for real-time defect classification on industrial parts, achieving a 93% accuracy rate across 5 defect categories.
- Converted the model to ONNX and optimised it for inference using onnxruntime, reducing inference latency by 35% compared to baseline CNNs.

Real-Time Multi-Object Detection and Tracking System | *Python, OpenCV, YOLOv5, Deep SORT,Flask, Kafka*

- Developed a real-time object detection and tracking system using YOLOv5 and Deep SORT, achieving 30+ FPS on live video streams with optimized TensorRT inference
- Deployed a Flask-based dashboard to display object counts, live tracking overlays, and real-time system metrics like FPS and memory usage.

SKILLS

Languages: Python, Java, C++, SQL, C#

Frameworks Tools: TensorFlow, Git, MLFlow, Docker, Kubernetes, PySpark, Hugging Face, LangChain, Streamlit, PowerBI,OpenCV

Technical Skills: Deep Learning, Artificial Intelligence, Machine Learning, Natural Language Processing (NLP), Computer Vision, Generative AI, Image Processing, Predictive Analytics, Cloud Computing, Data Science, Data Structures & Algorithms.

MLOps & Deployment: Model Training & Serving, CI/CD Pipelines, Model Versioning, Containerization, GPU Optimization,AWS