Sujith Thota

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Education

University of Illinois — Chicago, IL
Maters in Computer Science — *Aug. 2024 – May 2026*

Vellore Institute of Technology — Vellore, TN
Bachelor of Technology in Computer Science and Engineering — *July. 2018 – May 2022*

Experience

Advanced Application Development Analyst — July. 2022 – Aug. 2024
Accenture Solutions Pvt Ltd — *Hyderabad, TG*

- I worked on creating and deploying Tiny ML models on OpenMV MCU devices using TensorFlow Lite and other tools, bringing machine learning capabilities to resource-constrained devices.
- Developed Edge Modules (SDKs) for edge devices like Raspberry Pi, enabling seamless integration with IoT systems. Deployed edge modules to Raspberry Pi using Azure IoT Hub for device connectivity and management. Worked on a pipeline that pushes device data to Azure Data Explorer for further analysis
- I worked on the backend of a device monitoring system using FastAPI and Azure Data Explorer, leveraging Azure IoT services to display real-time device data on a web page. I created REST APIs and managed them using Azure API Management Service.

Machine Learning Research Assistant — Jan. 2022 – May 2022
Vellore Institute of Technology — *Vellore, TN*

- Co-authored and published a research paper on anomaly detection in surveillance videos using spatio-temporal autoencoders.
- Built a model combining 3D convolutional networks and ConvLSTM to detect abnormal events based on reconstruction loss.
- Processed video data by resizing, normalizing, and converting frames to grayscale for efficient training. Trained and tested the model on the Avenue Dataset and UCSD Pedestrian Dataset, achieving reliable anomaly detection

Projects

AI/ML-Based Health Insurance Claim Prediction | *Flask, ML, SQL, HTML/CSS* — Jan 2019 – Apr. 2019

- Developed a web application that predicts health insurance claim amounts using regression-based machine learning models. The aim is to create a machine learning model that predicts the insurance claims a customer can receive. This helps health insurance companies design better plans and make informed decisions while also giving customers a clear idea of what they can claim based on their details, making the process transparent and efficient for both
- Built and optimized predictive models, including Decision Trees, XGBoost and Random forest using hyperparameter tuning to improve accuracy.
- Co-authored and published a research paper on health insurance claim prediction using machine learning models in the IJATCSE journal.

Predicting Market Reactions to Insider Trading | *ML/Deep learning, Data analytics* — Aug. 2024 – Dec 2024

- Developed a predictive model that combines insider trading data, macroeconomic indicators, and historical market data to forecast market reactions.
- I've collected data from three main sources: Insider Trading Data (SEC EDGAR Form 4 filings), Market Data (Yahoo Finance for historical stock prices), and Macroeconomic Data (FRED for metrics like interest rates, inflation, and GDP growth).
- I trained two models, a basic LSTM and an advanced one, using the same data. The advanced model gave better predictions because of its improved design.

Technical Skills

Languages: Python, SQL, HTML/CSS
Technology/Frameworks: Flask, FastAPI, Deep learning, Machine learning, Computer vision, Machine vision, Edge computing, Amazon Web Service, Azure cloud, DBMS, Data Structures and Algorithms, Object Oriented Programming and problem solving
Developer Tools: Git, Docker, Kubernetes, AWS cloud, Azure cloud, VS Code, Azure DevOps