Seyi Swathhy Yaganti

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Portfolio: seyiswathhyyaganti.github.io

SKILLS

- C, C++, Java, Python, R, TensorFlow, Keras, PyTorch, Scikit-learn, OpenCv, NumPy, Pandas, Matplotlib, Plotly, Excel, SQL, Data Analysis, Classification, Regression, Clustering, Time-series Analysis, Neural Networks, CNNs, RNNs, GANs, NLTK, Transformers, BERT, GPT, Large Language Models, SpaCy, AWS, Azure, Tableau, Power BI, Flask, Streamlit, Data Bricks, Jira, Version Control (Git), A/B testing

WORK EXPERIENCE

J. Mack Robinson College of Business: *Graduate Research Assistant (Data Scientist)* January 2024 – Present
- Designed and implemented robust data preprocessing pipelines to clean and standardize financial data, enhancing model accuracy by **10%** and reducing preprocessing time by **25%.**
- Engineered machine learning models to predict stock prices and bond yields with **15%** higher accuracy, leading to more informed investment decisions and increased portfolio returns.
- Created data dashboards to illustrate stock price fluctuations and bond yield curves; enhanced data interpretation accuracy for financial analysts, which translated into **1.5 times** increase in the number of accurate investment strategies.
- Creating an intuitive financial forecasting platform by integrating predictive models and visualizations. Planning cloud deployment to ensure scalability and accessibility.

Georgia State University: *Graduate Teaching Assistant*   August 2023 – December 2023
- Crafted and delivered tailored graduate-level Machine Learning Curriculum, increasing student comprehension through targeted lectures on regression analysis, classification algorithms, and neural networks resulting in a **15%** improvement in student exam scores.
- Led weekly sessions applying ML to industry challenges, enhancing practical skills and real-world readiness.

Optum: *Data Science Intern*   October 2022 – June 2023
- Developed and deployed advanced machine models in Python and TensorFlow, achieving a **15%** improvement in accuracy for predicting healthcare utilization patterns using EHR and claims data.
- Built a predictive model leveraging historical insurance claims data to identify prospective customers eligible for future claims reapplication.
- Designed and implemented interactive Tableau dashboards to visualize healthcare utilization trends and cost drivers, significantly reducing operational inefficiencies by enabling data-driven decision-making.
- Formulated a computer vision-based model to automate bill validation for insurance claims, reducing processing time from **8 hours** to **6.5 hours** per batch, while improving accuracy to **93%**.

EDUCATION

Georgia State University || Atlanta, GA   August 2023 – December 2024 (Expected)
M.S. Computer Science   CGPA: **4.0/4.0**
> **Relevant Coursework**: Machine Learning, Deep Learning (Neural Networks), Computer Vision, Database Systems, Natural Language Processing, Artificial Intelligence, Data Mining, Internet of Things, User Experience/User Interfaces

PROJECTS

Chest X-ray analysis using advanced neural networks   January 2024 – April 2024
- Pioneered a state-of-the-art chest X-ray analysis model utilizing advanced neural network concepts, including Convolutional Neural Networks (CNNs), attention mechanisms, and Vision Transformers. This model enhanced diagnostic accuracy by **20%**, improving anomaly detection rates, and achieving an overall diagnostic accuracy of **96.5%**

Stock Sentiment Analysis using Transformers (FinBert)   September 2023 – December 2023
- Created a high-accuracy stock sentiment analysis model using FinBert, leveraging advanced NLP techniques (tokenization, stop word removal, lemmatization) and Python libraries (Pandas, NLTK) for data preprocessing. Achieved a **90%** accuracy rate after fine-tuning FinBert on a specialized financial sentiment dataset.