GAYATHREE GOPI

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EDUCATION

The University of Texas at Austin – McCombs School of Business May 2025
Master of Science, Business Analytics – Financial Analytics Track | GPA: 3.92/4.00
- Optimization I & II, Analytics for Unstructured Data, Advanced Corporate Finance and Investments, Advanced Machine Learning, Analytic Finance and Machine Learning, Principles of Empirical Finance, Unsupervised Learning

The University of Texas at Austin – College of Natural Sciences May 2024
Bachelor of Science, Biology – Computational Biology | Major GPA: 3.90/4.00
- University Honors List (7 times) Fall 2020 – Spring 2024

TECHNICAL SKILLS

- Python: Data Analysis (pandas, NumPy, matplotlib), Natural Language Processing (spaCy, nltk, VADER, BERT), Machine Learning (PyTorch, scikit-learn, TensorFlow), Optimization (gurobipy, scipy), Financial Analysis (yfinance)
- R: Machine Learning (randomForest, BART), Statistical Testing (ANOVA, Chi-Square), Data Wrangling & Visualization
- Software: MS Excel & Financial Modeling, SQL, C++, Neo4j, Tableau, GitHub, Visual Studio Code, TACC Supercomputer
- Certifications: Google Data Analytics Professional, Google Business Intelligence Professional, Snowflake Data Warehouse

EXPERIENCE

Diligence.io – *Business Analyst (Capstone Project);* Austin, TX November 2024 – Present
- Collaborating with Diligence.io to develop real estate analytics solutions by integrating and analyzing structured and unstructured data from county sources to identify distressed properties and predict market dynamics
- Utilizing Python, OCR, and data scraping to extract and clean mortgage and interest rate data for predictive modeling
- Designing interactive dashboards in Tableau/Power BI to visualize land use and zoning data, providing actionable insights to inform investment decisions for Keating Resources and other real estate development companies

K7 Capital Partners – *Associate (Part-Time);* Austin, TX July 2023 – October 2024
- Gained investment analysis, deal evaluation, and due diligence experience across multiple real estate asset classes
- Assisted in evaluation of $20 million small multifamily real estate investments in Austin-San Antonio mega-metro
- Researched LinkedIn analytics and implemented improvements to grow presence from 8 to 615 followers in 6 months

DATA SCIENCE PROJECTS

Predicting Bitcoin Returns Using Market and Sentiment Data October 2024 – December 2024
- Developed and implemented an LSTM-based recurrent neural network using Python to predict Bitcoin returns, leveraging historical data from yfinance and sentiment data from GDELT database to capture market trends and investor sentiment
- Integrated feature engineering to incorporate volatility, momentum indicators, and lagged returns and analyzed impact of sentiment dynamics on price predictions to improve predictive performance
- Designed and optimized regression and classification models to forecast price movements, applying hyperparameter tuning techniques to improve accuracy

Market Analysis Automation for Cleveland Condos October 2024
- Leveraged Python, Selenium, and Pandas to automate web scraping, cleaning, and analysis of Cleveland condo listings from Zillow, focusing on key attributes like price, square footage, and location
- Conducted geospatial analysis using Folium to create interactive maps visualizing price distributions across neighborhoods, enabling more intuitive location-based insights.
- Delivered actionable insights to K7 Capital Partners, streamlining market analysis workflows and facilitating data-driven decisions for real estate deal sourcing

Index Fund Construction and Portfolio Optimization for Tracking NASDAQ-100 October 2024
- Leveraged Gurobi and Python to design integer and linear programming models that construct a NASDAQ-100 tracking portfolio that was capable of predicting 2024 NASDAQ-100 returns based on 2023 data
- Minimized tracking error for improved alignment with performance index and efficient investment management

Exploring Public Opinion Using Social Media Analytics for NASA and ISRO October 2024
- Employed Python, spaCy, scikit-learn, and BERT for advanced NLP techniques, performing topic modeling, sentiment, and image analysis to assess public sentiment on Reddit and Instagram
- Delivered actionable insights on public engagement, enabling more targeted outreach strategies, enhancing brand positioning, and optimizing social media investment for NASA and ISRO

ADDITIONAL INFORMATION

Languages: Fluent in Tamil, Limited Working Proficiency in German
Interests: Indian classical dance and music, fine art, graphic design, volleyball
Work Eligibility: Eligible to work in the United States with no restrictions