

# 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  
• Developed Python and Google Sheets programs to streamline real estate investment analysis and marketing workflows  
• Supported evaluation of \$20 million small multifamily real estate opportunities in the Austin-San Antonio mega-metro  
• Researched LinkedIn analytics tracking and content-driven marketing, driving follower growth from 8 to 615 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