Omer Sany Prakash

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Education

University of Missouri — **Columbia, MO**
Ph.D. in Finance — *August 2025 - Present*

Oklahoma State University — **Stillwater, OK**
Master's in Quantitative Finance — *August 2023 – May 2025*

University of Dhaka — **Dhaka, Bangladesh**
BBA; Finance — *January 2017 – June 2021*

Skills Summary

Tools: Excel, Power BI, MS Access, Bloomberg, Yield Book
Coding: **Python** (Intermediate), **R** (Proficient), **SQL** (Proficient)
Packages: Numpy, Pandas, Yfinance, Scipy, Matplotlib, Statsmodels
Platforms: Visual Studio Code, Jupyter Notebook, Spyder

Work Experience

MidFirst Bank — **Oklahoma City, OK**
Mortgage Acquisition Intern — *June 2024 – August 2024*

- Developed a comprehensive framework to assess eligibility for FHA Waterfall Payment relief plans, directly influencing critical valuation assumptions for loan purchases.
- Enhanced the framework by incorporating sensitivity analysis features to evaluate changes in key inputs, and presented the final project to senior management, gaining approval for implementation.
- Automated the generation of reports that analyzed the impact of loan modifications on interest accrual by extracting data from the central database using MS Access and analyzing it in Excel
- Supported mortgage acquisition process through rotations in valuation, research, model development, transaction management and FPA.

Oklahoma State University — **Stillwater, OK**
Graduate Teaching Assistant — *August 2023 - Present*

- Conducted weekly sessions to address student questions and reinforce concepts covered in lectures.
- Assisted my professor in designing and grading assignments, quizzes, and helped in proctoring exams.

Projects

Replication of "Earnings Management through Real Activities Manipulation"
Research Project

- Reproduced empirical analysis using Compustat data and Fama-MacBeth regression to test for real earnings management through abnormal CFO, discretionary expenses, and production costs.
- Estimated normal operational metrics using industry-year regressions and identified significant deviations in suspect firm-years consistent with real activities manipulation.

Volatility Surface | LINK
Python Project

- Developed a Python-based tool to analyze option volatility surfaces, implementing both Black-Scholes and Heston models to calibrate implied volatility and compute option prices.
- Automated the retrieval and processing of option chain data for specified tickers, integrating yield curve construction from treasury data to enhance model accuracy.

Value at Risk (VaR) Model for Portfolio Risk Management | LINK
Python Project

- Implemented a Value at Risk (VaR) model using monte carlo simulation to estimate portfolio risk.