VARAD GANDHI

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EDUCATION

University of Illinois Urbana-Champaign, Gies College of Business — **Champaign, IL**
Master of Science in Financial Mathematics (STEM designated program), **GPA:** 3.7/4 — August 2024 – August 2025
***Relevant Coursework**:* Accounting, Investments, Advanced Python, Economics, Managing Market Risks, Quant Finance in R, Fixed Income Portfolios, Applied Financial Analysis, Big Data Analytics in Finance

NMIMS University, MPSTME — **Mumbai, India**
MBA in Technology Management, **GPA:** 3.8/4 — July 2019 – August 2024
- Business Visualization, Programming for Analytics, Project Management, Financial Analysis – **Grade A+**
- Google Data Analytics Professional Certification from Coursera

NMIMS University, MPSTME — **Mumbai, India**
Bachelor of Technology in Information Technology (Honors), **GPA**: 3.8/4 — July 2019 – August 2024
- Honors with a specialization in **AI/ML** in collaboration with IBM Innovation center for excellence
- Python, Advanced Database Management, Cloud Computing, AI/ML, Object Oriented Programming - **Grade A+**

EXPERIENCE

IDX — **Champaign, IL**
Intern, Quant Research and Technology — June 2025 – August 2025
- Built and validated ML-based risk scoring models (Random Forest, XGBoost) using VaR, drawdown, and YZ volatility across S&P 500 and crypto assets; integrated model output into quarterly risk dashboards
- Developed end-to-end Crypto D-apps for the client base using YO and Blockdaemon protocols for staking/lending

Nomura Structured Finance Services Limited — **Mumbai, India**
Intern, Global Markets Division – Electronic Trading Client Services — May 2023 – September 2023
- Led the development of reconciliation frameworks using Alteryx to identify mismatches in electronic trading client setups, reducing operational risk by 60% and contributed to building data accuracy for regulatory reporting
- Analyzed and constructed SOPs for every risk control built and researched the existing systems for operational risk avenues
- Engineered an automated data pipeline using Power BI to process and visualize daily trading data for 10,000+ clients, generating actionable insights into cross-selling opportunities across FX and Fixed Income products

SKILLS

Programming and Technology – Python, SAS, R programming, SQL, C++, Web development languages, Django and Spark
Business Intelligence and Analysis – Alteryx Analytics, Power BI, Tableau, Looker Studio, Excel, Machine Learning models
Finance & Accounting – Business Accounting, Financial Management and Analysis, Financial Portfolio & Risk Management
Interpersonal Skills – Corporate Communication, Adaptability, Digital Communication, Leadership, Detail oriented

PROJECTS

Implementation of Automated Data Pipeline for Electronic Trading Client Services using Alteryx
- Developed and automated a real-time data analysis pipeline using Alteryx and Python APIs to extract and process large-scale trading data from Bloomberg and Tradeweb and applied data mining and statistical modeling techniques such as Regressors and classifiers to support decision-making and cross-selling strategies in FX and Fixed Income markets

Quantification of the effects of economic indicators on the performance of US stock market indices
- Applied Multiple Linear Regression and XGBoost to model economic indicators' (GDP, inflation, unemployment) impact on market performance, visualizing insights via heatmaps and correlation matrices to support data-driven forecasting
- Performed multivariate time series analysis and lag correlation of economic indicators with market indices; backtested XGBoost and MLR models for predictive power and developed quantitative equations for each indicator

Stress Testing for Financial Portfolios
- Simulated stress scenarios such as 2008 Financial Crisis, COVID-19 Crash to assess portfolio resilience of $100m, and computed VaR and CVaR at 95% and 99% confidence levels, quantifying potential losses up to $25 million
- Applied XGBoost & PCA to identify macro factors driving drawdowns, reducing noise by 20%

Multi-Asset Derivative Pricing and Risk Modeling application
- Built a Monte Carlo–based Streamlit app to price call options on AAPL, MSFT, and EUR/USD using 100k simulated paths
- Computed portfolio VaR (95%: 27.4%, 99%: 32.4%) and CVaR (95%: 35.6%, 99%: 36.2%), visualizing return and risk

Enhancing returns using STRIP & STRAP option strategies
- As a part of the Financial Risk Management project, analyzed the Indian Stock Market between January 2024 and February 2024 to identify the securities with higher risk reward ratio through technical and fundamental analysis, and simulated a strip-and-strap options strategies on the securities to hedge the risk, maximizing the worth of the invested funds by 18%