VARAD GANDHI

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EDUCATION

University of Illinois Urbana-Champaign, Gies College of Business **Champaign, IL**
Master of Science in Finance (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
***Extra – Curriculars**:* Teaching Assistant/Growth Group Facilitator for BUS 401 at Gies College of Business

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+**

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
- Researched and developed machine learning models of Random Forest and MLR for generating a risk model for multiple components of S&P 500 and integrated the risk scores into the portfolio rebalancing engine at the firm
- Spearheaded the development of Crypto D-apps for the clients using YO-protocol and Block daemon network APIs

Nomura Structured Finance Services Limited **Mumbai, India**
Intern, Global Markets Division – Electronic Trading Client Services May 2023 – September 2023
- Ensured data integrity across client trade setups by developing reconciliation frameworks in Python and Alteryx, identifying mismatches and reducing operational risk by **60%**, which improved accuracy of trade execution and confirmation
- Built a SQL-based MIS platform to oversee onboarding/offboarding of institutional accounts, replacing manual VBA macros and accelerating reporting and cash flow monitoring by **2+ hours** per cycle daily
- Collaborated with Technology Operations and Sales teams across EMEA and APAC trading desks to re-document the trade life cycle, resolve execution and allocation queries, and quantify risks in FX and Fixed Income pricing engines

SKILLS

Programming and Technology – Python, SAS, R programming, SQL, C++, VBA, 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

Advanced Interactive COVID-19 Analytics Dashboard in Microsoft Power BI
- Developed an interactive, multi-page Power BI dashboard to analyze and visualize large-scale global COVID-19 datasets
- Implemented advanced filtering and pagination techniques to enable dynamic data exploration and uncover actionable insights, enhancing stakeholder understanding of evolving pandemic trends and the financial impact of it

Quantification of the effects of economic indicators on the performance of US stock market indices
- Modeled macro factors (GDP, CPI, unemployment, money supply) against major indices such as NASDAQ, S&P and Down Jones using Python, Regression & XGBoost, achieving **R^2** of 0.97 in predicting returns.
- Found GDP/PCE as strong drivers and CPI/unemployment as weak influencers, with Russell 3000 most stable for investors

Portfolio Analysis of the NIFTY REALTY Index
- Conducted a 33-month analysis of NIFTY Realty constituents using CAPM, Markowitz Model, APT, and Sharpe Single Index Model to evaluate risk–return dynamics
- Constructed efficient frontier and minimum variance portfolio, achieving 71% annualized return at 5.6% risk, and identified undervalued/overvalued stocks through CAPM & multi-factor APT analysis

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

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%

Enhancing Portfolio Performance with Advanced Options Strategies
- Designed and simulated an options portfolio on Indian equities (HUL, ITC, Infosys, Tata Consumer), applying fundamental & technical analysis with Strip/Strap hedging strategies
- Allocated ₹10L across positions, achieving 18% portfolio return enhancement, mitigating downside risk in volatile markets