VEDANT KHANDELWAL
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EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY Cambridge, MA
Candidate for Master of Finance, February 2025 2023 - Present

- GPA: 4.9/5.0; Teaching Assistant for Financial Markets (15.433); Concentration in Financial Engineering
- Coursework: Advanced Analytics of Finance, Financial Engineering, Advanced Financial Mathematics, Financial Data Science & Computing, Financial Markets, Fixed Income Securities & Derivatives, Machine Learning, Statistical Data Analysis, Hands-on Deep Learning, Optimisation Methods, Quant Methods for NLP, Applied Macroeconomics
- Clubs & Activities: Quantitative Finance Club, Investment Management Club, MIT Poker Club

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI Goa, India
Bachelor of Engineering (Honors) in Electrical Engineering 2019 - 2023

- GPA: 9.18/10; 1 of 15 out of 800 students to receive a Merit-based Scholarship with 80% tuition fee waived for 3 years
- Leadership: President, Quantitative Finance Club; led a team of 30 people managing a portfolio with AUM of $20K; contributed to a open-source library, QuaLib and gave lectures on finance; organized inter-collegiate fests with 10,000 attendees from 50 colleges
- Research Publications: Profitability of Pairs Trading strategy in Indian stock markets (published in Empirical Economics Letters); Improvement in Portfolio Optimization in dynamic stock networks using machine learning and link prediction

EXPERIENCE

PIMCO New York City, NY
Quantitative Research Analyst Intern Summer 2024

- Forecasted daily fund flows with Transformer models to derive 15+ macroeconomic topic sensitivities by leveraging sentiment analysis and rolling correlations, outperforming traditional methods such as XGBoost regression
- Deployed an end-to-end pipeline integrating daily real-time news embeddings based on arbitrary topic inputs from portfolio managers, enabling probabilistic time series forecasts with selected PIMCO fund flows
- Performed residual analysis and decomposed trends by comparing actual and predicted fund flows, evaluating co-movements, and identifying underlying patterns to enhance predictive power and reliability of an Autoformer and vanilla time-series Transformer

MIT SLOAN ACTION LEARNING PROJECT - GMO Cambridge, MA
Joint Financial Proseminar in Investment Management Fall 2023

- Conducted co-occurrence analysis between equity and 10-year treasury bond returns to overcome correlation assumptions and enhanced diversification by analyzing subsample co-movements with interest rate thresholds
- Devised relevance-based multivariable regimeness models, increasing portfolio stability and improved single-variable binary classification by incorporating GDP growth rate and inflation as additional factors

NOMURA Mumbai, India
Risk Management Intern, Credit Risk Fall 2022

- Developed Python-based models for interest rate projections; automated a weekly process to identify monthly overdue counterparty reviews for each analyst, resulting in 96% reduction in execution time
- Boosted global cash trading team's efficiency by incorporating scorecards for 1,000 counterparties, reducing review time by 75% and monitored $3B exposures leveraging stress testing to mitigate defaults

INDIAN INSTITUTE OF MANAGEMENT Shillong, India
Quantitative Research Intern Fall 2020

- Improved Markowitz Portfolio Optimization for the Indian market utilizing Python for machine learning and clustering for portfolio selection; delivered returns of 30%, risk of 16% with maximum Sharpe as 1.6
- Optimized correlation prediction to achieve 0.8% mean squared error; forecasted returns using 6 node-level features and 5 technical indicators, resulting in a research publication

STRATZY Mumbai, India
Investment management company with AUM of $20M
Quantitative Research Intern Summer 2020

- Co-managed $10K for more than 5 clients opting for investment advisory using fundamental analysis and rebalancing techniques
- Back-tested 5 intraday trading strategies with Python, yielding more than 30% annual returns and less than 10% drawdown

ADDITIONAL INFORMATION

- Computer Skills: Python, Excel/VBA, C, MATLAB
- Volunteer: Taught the fundamentals of finance and banking to more than 25 underprivileged children in Goa, India
- Activities: Represented my state in 50+ lawn tennis competitions and school in 20+ swimming competitions
- Interests: Playing Lawn Tennis, Cricket and Weightlifting