Aman Narsaria

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EDUCATION

University of California, Berkeley – Haas School of Business **Expected March 2025**
Master of Financial Engineering
Activities: *Competing in WorldQuant International Quant Championship | IMC Prosperity Challenge(top 5%) Berkeley, CA*

Birla Institute of Science and Technology, Pilani **July 2023**
B.E. Computer Science and M.Sc. Economics - GPA: 3.8/4.0 *Pilani, India*
Achievements: Distinction(top 5% of the batch); Received 80% scholarship awarded to top 5% undergrads

SKILLS & COURSEWORK

Programming: Python(Numpy, Pandas, Sci-kit learn, SciPy), C++, SQL, PyTorch, Flask, FastAPI, DSA, Linux, Git
Mathematics and Statistics: Probability and Statistics, Econometrics, Linear Algebra**,** Derivatives, Statistical modeling
Certifications: Machine Learning Specialization, Trading Algorithms, CS-229: Machine Learning (Stanford YouTube)

PROFESSIONAL EXPERIENCE

Dolat Capital (High-frequency trading firm) **Mumbai, India**
Quantitative Analyst – Systematic Futures Trading *August 2023 - January 2024*

- Analyzed tick-based data via in-depth regression analysis to identify 5+ orthogonal high alpha-generating signals
- Constructed systematic trading strategies for single stock futures in the Indian market using indicators like Order imbalance, DEMA, EquityLeadLag, Volume, etc.; backtested the strategy with Sharpe ratio of 1.7 over 6 months
- Increased PnL by 8% by optimizing limit order quotes based on current inventory, thus reducing inventory risk
- Researched order book dynamics and market microstructure to identify optimal entry bid-ask spreads

JPMorgan Chase & Co. **Mumbai, India**
Quantitative Research Intern – Equity Derivatives Group *July 2022 - June 2023*

- Evaluated exotic option payoffs using numerical methods like Monte-Carlo simulation and finite differences
- Reduced testing time by 87% by implementing a helper class integrating all tests for automated model testing
- Coded trade validation scripts for daily trader transaction monitoring, managing exposures over $20MM
- Collaborated with senior quants and traders on model validation and improvement, conducting stress tests, statistical analysis, and backtesting across various types, such as vanilla options and basket rebalance models

Collab Lab (Ed-tech Startup) **Gurgaon, India**
Machine Learning Intern *May 2021 - July 2021*

- Modeled a student classroom by designing 12 key metrics; developed a random forest classification model
- Intent classification(95% acc): predict student actions (e.g. quiz, theory, or doubt) based on app chat interactions
- Improved student engagement by 25% through real-time intent prediction by integrating the models via FastAPI

RESEARCH EXPERIENCE

Hamilton Trading *April 2024 - Present*

- Currently working on a long/short intraday open range breakout strategy for the FTSE futures contracts
- Research strategy performance for various technical indicators like VWAP, momentum, delta divergence, etc.

Question Answering System | Prof. Yashwardhan Sharma - BITS-Pilani *January 2021 - May 2021*

- Designed a system to fetch 5 most relevant FAQ pairs by deploying two models: (1) Pooling model: fetched top 100 relevant results (BM25 matching algorithm) ; (2) Ranking model: ranked these results (cosine similarity)
- Explored FAQ ranking techniques with SBERT embeddings, accomplished a Mean Reciprocal Rank score of 0.69

PUBLICATIONS

A. Narsaria et al., "A Study on the Efficiency of the Indian Stock Market", in *arXiv Pre-Print*, December 2020
This study examined the weak form efficiency of the Indian stock market (BSE/NSE) using various statistical tests like Runs test, Auto-correlation test, and Auto-regression test. Confirmed its inefficiency and potential for outperformance

INTERESTS: Hiking (highest trek:14000 ft), Running (Long distance), Strategy games, Guitar, Cooking and Volunteering