

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 IMC Prosperity Challenge and WorldQuant International Quant Championship

Berkeley, CA

Birla Institute of Science and Technology, Pilani

July 2023

M.Sc. Economics and B.E. Computer Science - GPA: 9.04/10

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: Stochastic Calculus, Probability and Statistics, Econometrics, Linear Algebra, Derivatives

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
- Implemented 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

Remote Sensing Image Retrieval using Deep Learning Techniques – BITS Pilani

January 2022 - May 2022

- Developed a multimodal system for image retrieval, combining CNN and LSTM to generate descriptive captions
- Used BERT embeddings to convert captions into feature vectors; achieved accuracy of 78.2% (cosine similarity)

[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), Squash, Guitar, Cooking and Volunteering