Pratyusa Kumar Tripathy, CFA

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Quantitative Researcher (Vice President) at JPMorgan Chase & Co. with 6+ years in validating & developing statistical & ML models in asset management. CFA Charterholder with deep expertise in factor investing, risk decomposition, optimization, and Generative AI for investment insights. Experienced in portfolio management and model governance & lifecycle management.

Education & Academic Achievements

Indian Institute of Management Lucknow 2017 – 2019
Post Graduate Diploma in Management *Lucknow, IN*
- CGPA: 8.04/10 | Rank: Top 5% (22 out of 450+) | Dean's Merit List
- Secured 9.0/10 Cumulative Grade Point Average in Finance courses

National Institute of Technology, Rourkela 2009 – 2013
B.Tech in Electronics & Communication Engineering *Rourkela, IN*
- CGPA: 8.61/10 | Rank: Top 10%

Certifications

- Cleared all three levels of Chartered Financial Analyst (CFA) Certification on first attempt
- Completed Deep Learning Specialization and Generative AI with LLMs course by DeepLearning.AI in coursera

Work Experience

JP Morgan Chase & Co. April 2019 – Present
Quant Modeling Lead @ Asset Management *Bengaluru, IN*
- **Review Lead - Multi-asset solutions portfolio:** Spearhead the review and governance of 20+ quantitative models managing a $350B+ multi-asset portfolio, including Tactical Allocation, Alpha Generation, Optimization, and Glidepath frameworks. Responsible for new model reviews, periodic validations & governance, and audit/regulatory interface.
- **Investment Management Model Reviews:** Conducted independent reviews of quantitative models across asset classes, developed using statistical, machine learning, Generative AI, and simulation-based algorithms. Validated high-exposure models including Barra & Axioma multi-factor risk models as well as Barra & Gurobi-based optimization models.
- **Quantitative Model Development:** Developed a proprietary multi-factor risk model in collaboration with the global equity team. Analyzed asset-level macro factor exposures using univariate regression. Calculated portfolio VaR, CVaR using GARCH Filtered Historical simulation.
- **Independent Data-Science Projects:** Built a regime indicator using Gaussian and Hidden Markov Models. Fine-tuned FinBERT for sentiment analysis task. Implemented quantile regression with AI/ML techniques for return distribution forecasting. Analyzed the impact of model over-specification and over-complexity on over-fitness for ML models.
- **Consumer Space Model Reviews:** Reviewed the Consumer banking Deposit Wrapper model, covering over $1 trillion in exposure. Improved prediction performance of 5+ ML-driven marketing and fraud models through validation

Magneti Marelli (FIAT Group) Jun 2013 – Apr 2017
Senior Engineer *Gurgaon, IN*
- **Firmware Development:** Designed safety-critical firmware (C++) for powertrain ECUs, enabling real-time vehicle diagnostics; Developed CAN protocol drivers improving data throughput by 20% for vehicle control systems
- **Testing Process Automation:** Reduced firmware testing cost by 30% through automation of unit testing procedure; Designed a firmware testing module for major German client in liaison with Global Firmware team

Reserve Bank of India Apr 2018 – Jun 2018
Summer Research Intern *New Delhi, IN*
- **Currency Circulation Modeling:** Developed a VAR model to analyze dynamic relationships between CC, inflation, and interest rates; Validated the short-term forecasts through Granger causality tests and residual diagnostics

Skills

Quantitative Finance: Factor Investing, Asset Allocation, Portfolio Optimization, Risk Decomposition & Attribution
AI & ML Algorithm: General Linear Model, Tree-based Ensemble Methods, Deep Learning, Time Series Models, Generative AI
AI & ML Development: Feature Engineering, PCA, Regularization, Optimization, LLM Finetuning, Explainability
Programming & Tools: Python, Libraries (Pandas, Matplotlib, Scikit-Learn, PyTorch), VSCode, AWS Sagemaker, GIT

Business Competitions

Global Student Challenge, The Netherlands | *Global Runners Up - €6000 Prize* 2018
- Represented Asia-Pacific Region in the Global Finals of GSC at Zwolle, The Netherlands
- Global runners-up of international SCM competition with participation from 100+ countries, 10000+ students

Other Business Competitions 2018
- Top 20/2300+, Mahindra War Room - CEO & Campus Round Winner, Won 25K
- Campus Winner, ICICI Beat the Curve - Investment in Infrastructure Industry
- National Finalist (Top 8 in India), RBI Policy Challenge