

NITIN MADAGI

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PROFESSIONAL EXPERIENCE

Stellarus Tech Solutions – Senior Associate (Risk Management) (North Brunswick, NJ)

Mar 2025 – Current

- Built machine learning–driven FX exposure anomaly detection models using Python to strengthen risk monitoring
- Developed an options pricing engine implementing Black-Scholes and volatility analytics using real-time market data to support quantitative derivatives valuation
- Evaluated Random Forest and Neural Network option pricing models against Black-Scholes benchmarks using MSE metrics to assess model robustness and pricing efficiency
- Architected an AI-driven trading and risk engine integrating LLM trade signal generation, portfolio risk constraints, and Alpaca paper-trading execution to simulate systematic investment workflows
- Built an intraday liquidity forecasting and stress testing platform to simulate cash-flow shocks, funding disruptions, and breach scenarios, strengthening treasury risk monitoring and contingency planning

Liberty & Freedom Legal Group – Finance/Accountant Associate (Risk Analytics Team) (Manhattan, NY)

Feb 2024 – Feb 2025

- Applied machine learning and statistical modeling techniques to refine predictive models, increasing model performance by 20%
- Executed interest rate hedging strategies for donor-advised fund investments, mitigating portfolio volatility and preserving fund value amid rate fluctuations, improving long-term grantmaking stability
- Automated donor fund risk reporting using Python and Excel, reducing report preparation time by 70%
- Monitored financial and investment risks across donor-advised fund portfolios totaling \$30M+, ensuring alignment with organizational risk tolerance and IRS compliance guidelines

Subhas Patil & Co. – Financial Risk Analyst (Vijayapura, India)

Apr 2021 – Aug 2022

- Performed daily risk assessments on client portfolios totaling \$20M+ AUM, monitoring exposure to credit, interest rate, and market risk
- Developed Value-at-Risk (VaR) models and stress testing frameworks, improving risk scenario coverage by 40%
- Prepared weekly risk dashboards and exposure summaries for investment committee meetings, facilitating timely decision-making
- Built automated model execution pipelines forecasting balance sheet items, fee revenue, and macroeconomic variables, reducing manual processing time by 35%

Cognizant Technology Solutions Corp (Bangalore, India)

Senior Systems Engineer (Quant Risk Support Team)

Sept 2018 – Jan 2021

- Collaborated with quant risk analysts to translate model requirements into high-performance compute environments, ensuring optimal resource allocation and uptime
- Developed secure ETL pipelines to ingest and process market, trade, and counterparty data for quantitative analysis, improving data delivery speed by 30%
- Partnered with Risk teams to build Python-based risk models, reducing deployment time from 3 weeks to 3 days using CI/CD pipelines
- Integrated quantitative models with front-office systems and downstream reporting platforms using RESTful APIs and Kafka, ensuring seamless data exchange

Systems Engineer (Quant Risk Support Team)

Sept 2017 – Aug 2018

- Supported stress testing and scenario analysis models by optimizing data ingestion and compute workflows, cutting risk calculation runtimes from 8 hours to under 3 hours
- Implemented automated monitoring and alerting scripts for model execution failures, enabling real-time issue detection
- Collaborated with quantitative risk teams to containerize and deploy 15+ risk models across dev/test/prod environments, reducing deployment errors by 90%

SKILLS

Core Finance Skills: LLM trading systems, AI risk engines, Portfolio Risk Management, Risk Modeling, Risk Reporting & Presentation, Liquidity Risk Management, Financial Derivatives, Statistical Analysis, Credit Risk Assessment, Scenario Analysis & Stress Testing

AI & Quant Engineering: LLM trading systems, AI risk engines, Anomaly detection, Predictive modeling, Neural networks (LSTM, Transformers, ANN), Statistical modeling, Feature engineering

Data & Visualization Tools: Tableau, Power BI, Excel (Advanced), Alteryx

Programming Languages: Python, R, SQL, MATLAB

EDUCATION

Master of Science in Financial Mathematics (Financial Risk Management Track)

University at Buffalo, The State University of New York, NY(STEM)

Aug 2022 – Jan 2024

Bachelor of Engineering in Electronics & Communications

Sri Siddhartha Institute of Technology, Tumkur, India

Jun 2012 – Sep 2016