RAHUL SUBRAMANIAM

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EDUCATION

Columbia University — **New York, NY**
Master of Science in Computational Data Science — **May 2022**
- Coursework: Statistical Inference and Modelling, Time Series, Machine Learning, Probability and Statistics, Natural Language Processing, Algorithms for Data Science, Cloud Computing and Big Data, Visualizations using R

Fitch CQF Institute — **New York, NY**
PGP Certificate in Quantitative Finance: Level One (Part time) — **May 2024**
- Coursework: Partial Differential Equations and Stochastic Calculus, Portfolio Theory, Time Series Modelling, Monte Carlo Simulations, Options Theory and Greeks

RV College of Engineering — **Bangalore, India**
Bachelor of Engineering in Computer and Information Sciences — **Jul 2020**
- Coursework: Linear Algebra, Object Oriented Programming, Data Structures and Algorithms.

SKILLS

Programming	Python, C++, R, SQL, C.
Data Science	Regression, Markov models, Applied ML, Statistics, Explainability, Deep Learning.
Visualization	Matplotlib, GGplot, Power BI, MS Excel, Tableau (Rudimentary).
DB and Cloud Services	AWS, Google Cloud Platform. RelationalDB, GraphDB, KeyValue Store DB.
Development	Git, Java (Rudimentary).
Finance	Cleared CFA Level 1; Pursuing CFA Level 2.

WORK EXPERIENCE

JP Morgan Chase — **Jersey City, NJ | New York, NY**
Quant Modelling Senior Associate — **Jan 2023 - Current**
- Working on Loss forecasting models in the credit risk portfolio used in CCAR/CECL cycles.
- Govern model performance and conduct exit meetings to deliberate over red/amber models (in addition to below responsibilities).

Quant Modelling Associate — **July 2022 - Jan 2023**
- Research multiple ML/Stat algorithms with focus on Explainability and Interpretability and present results to Senior MD(s).
- Develop alternative champion models that aim at performing better than the production model.
- Evaluate the Risk of flagship Chase Credit models (DFAST) using Statistical and Machine Learning Techniques.

Orenda Inc. — **New York, NY**
Energy Markets Quant Intern — **June 2021 - Sep 2021**
- Worked with R&D to perform Time series analysis and develop deep learning models to predict Real Time Price peaks in ERCOT.
- Achieved an accuracy of approx 90% in Q2-Q3 by building a Stacked LSTM Categorical model predicting price peaks.

MakeMytrip — **Bangalore, India**
Software Developer — **Jul 2020 - Dec 2020**
- Worked as a full stack developer (return offer from prior ML internship) in the Adtech team to see a MOM revenue of $125,965.

CME Group — **Bangalore, India**
Technology Development Intern — **Jan 2020 - June 2020**
- Automated processes of fetching data and alerting the team when error % exceeded BM reducing manual effort by approx 80%.

PROJECTS

Financial Engineering: Equity Options pricing with Straddle based strategy — **March 2024 - Present**
- Leveraging ML vol modeling, Euler Maryama and MCM to price equity options, and identified mispricings in equity options.

Asset Allocation: Multi Factor and VAR Modelling for Fund of Funds — **Dec 2023 - Jan 2024**
- Built Multi factor models to aid a Fund of fund in determining Market exposures of component hedge funds.
- Calculated multiple risk adjusted return metrics that are included but not limited to VAR, CVAR, Beta, Treynor, Sharpe etc.

Systems: Pipeline of ML based Student Recruiter solution using AWS — **Mar 2022 - May 2022**
- Developed an end to end web application that leverages a content based recommender system to enhance the recruiting process.
- Key technologies used involve AWS codepipeline and deployment, AWS lambda, dynamoDB, RDS to name a few.

LLM: Lexical substitution with Word2Vec embeddings and BERT — **May 2021 - June 2021**
- Found Lexical substitutes by implementing Lesk Algorithm using Wordnet and BERT using Huggingface transformers.