**Kartik Agarwal**
Raleigh, NC | (424) 440-9728 | kartikagarwal777@gmail.com
https://www.linkedin.com/in/kartik-agarwal/ | https://kartik-agarwal.com/

## EXPERIENCE

***Associate (Alpha Quant Researcher),* QMS Capital Management** Durham, NC (Feb 2023 – Present)

***Senior Analyst*** (Jul 2021 - Jan 2023)

- Led the firm's expansion into Emerging Markets by developing a systematic framework with dynamic inclusion/exclusion criteria to identify tradable currencies and manage universe composition.
- Researched, developed, and implemented 10 successful alpha strategies for the EM FX universe, enabling systematic exposure to high-growth markets.
- Crafted full stack alpha research for forex, commodities, equity and fixed-income futures — from idea generation and data acquisition to statistical modelling, backtesting and deploying
- Developed alpha models using ML techniques, including Neural Nets(TFT), XGBoost, Affinity Propagation, Kalman Filter, Panel Regression, Lasso
- Designed Python-based infrastructure for research workflows and data pipelines, significantly improving robustness and research velocity
- Created predictive signals for forecasting higher frequency metrics such as order flow imbalance
- Constructed proprietary macro indexes like bond risk premia, country sentiment, etc, enhancing model inputs and improving predictions.
- Incorporated fundamental factors such as sovereign risk, IV skewness, country fundamentals, etc. into alpha models
- Researched statistical arbitrage strategy for global commodity and equity futures employing clustering techniques
- Conducted peer code reviews and model validations ensuring high standards of code quality, accuracy, and robustness.

***AFP,* GIC (Singapore Sovereign Wealth Fund)** San Francisco, CA (Mar 2020 – Dec 2020)

- Generated an efficient trading strategy that exploits mispricing in stock returns due to categorisation and its fundamental industry peers identified using NLP text-based network classification on 10K fillings

***Researcher,* UCLA** Los Angeles, CA (Jun 2020 – Jun 2021)

- Partnered with the Federal Reserve Bank of Philadelphia to quantify COVID policies' impact on household well-being.
- Analyzed trends and diversification in equity, debt, and real estate across countries to assess world events' impact.

***Software Engineer,* WeInvest** Bangalore, India (Mar 2019 – Jul 2019)

- Managed the implementation, deployment and client engagement of white labelled Wealth Management Robo Advisory product for the following Singapore and Middle East banks: OCBC, Mubasher and CIMB

***Software Engineer,* Zoho ManageEngine** Chennai, India (Jun 2017 – Mar 2019)

- Developed core features of the product Zoho Zeptomail being used by 2.5k+ organisations (mail sending, searching and asynchronous/ multi-threading framework) in Java laying the foundation for the future tech stack
- Led a team of a dozen developers, designers, testers and content writers in developing several key modules and features such as bounce parsing, tracking, emailcast and developers console resulting in an improved feature line

## EDUCATION

**UCLA ANDERSON SCHOOL OF MANAGEMENT** Los Angeles, CA

***Master of Financial Engineering***

**VELLORE INSTITUTE OF TECHNOLOGY** Vellore, India

***Bachelor of Technology, Computer Science and Engineering***

## HOBBY PROJECTS

**Indian Stock Market** Present

Researched, developed and deployed multi factor automated trading strategy over Google Cloud for Nifty futures traded on the NSE to achieve a Sharpe ratio of 3.52 with a daily turnover of 10%.

## ADDITIONAL

*Skills:* Python, Java, R, Matlab, SQL, Git/Hg/SVN, Bloomberg, Kafka, Redis, GCP, AWS, Windows, Mac, Ubuntu
*Booth Investment Competition:* Represented UCLA at the Chicago Booth Investment Competition-Quant track
*CFA IRC:* Represented UCLA at CFA IRC and perform financial analysis on Snapchat
*Interests:* Soccer, Martial Arts, Car Racing, Horology