

Abhinav (Abhi) Raghunathan

112 South 43rd Street, Philadelphia PA 19104 | (609) 619-1344 | abhirags@seas.upenn.edu | GitHub: [abhinavr2121](https://github.com/abhinavr2121) | www.abhiraghunathan.com

EDUCATION

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- University of Pennsylvania: School of Engineering and Applied Science** Philadelphia, PA
Aug 2021 – May 2023
- M.S.E. Data Science, GPA: 4.00
 - Penn Graduate Consulting Club (VP Management), Wharton Analytics Fellows (Technical Lead)
- The University of Texas at Austin: Cockrell School of Engineering; College of Natural Sciences** Austin, TX
Aug 2017 – May 2021
- B.S., Computational Engineering and Mathematics; GPA: 3.71 / 4.00 (University Honors)
 - Student Engineering Council, Texas Undergraduate Computational Finance (UCF)

EXPERIENCE

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- Data Science Intern | Vanguard IMFS (global investment advisory firm with \$8.1T+ AUM)** Feb 2022 – May 2022
- Built interface (Python) and custom functions to streamline access to Refinitiv financial data.
 - Carried out statistical tests and backtests (Python, time series, online learning) on order flow imbalances to identify potential investment signals.
- Data Science Contractor | Starry, Inc. (modern internet service provider with recent IPO)** Feb 2022 – Apr 2022
- Audited and improved random forest model (R, Snowflake) to identify high-reward marketing targets.
 - Final model predicted raw subscriber increase of each marketing target within one subscriber >80% of the time.
- Summer Analyst | Point72 Asset Management (global hedge fund with \$17B+ AUM)** Jun 2020 – Aug 2020
- Applied statistical techniques (chi-squares testing, t-testing, etc.) to large datasets from third-party vendors (i.e. AppAnnie) to gain conviction on potential investment theses.
 - Conducted in-depth research and financial analysis (DCF, comparables, three-statement models) in Excel to pitch public investment opportunities within the video gaming, chiropractic, and home furnishing industries.
 - Tracked ~100 tickers within the healthcare sector to quantify impact of COVID-19 and identify mispricing opportunities.
- FinTech Engineering Intern | IHS Markit (global information services and software company)** Jun 2019 – Aug 2019
- Developed on IHS Markit's loan reconciliation tool (Python, AWS Lambda, AWS S3).
 - Collaborated with Market Reconciliation Services to automate loan tracking processes for 10+ financial clients and cut 50+ hours of manual labor with an internal tool that verified loan data and handled client-specific enhancements.
 - Resulting product adds over \$3M to IHS Wall Street Office Product revenues.

ADDITIONAL PROJECTS

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- Ethical AI Database (EAIDB) | Vetted database of AI startups providing ethical services** May 2022 - Present
- Developed a classification and market map for 150+ companies within the Ethical AI startup ecosystem ([link](#)).
- Technical Lead | Wharton Analytics Fellows, Teach for America (TFA)** Nov 2021
- Lead team of students with the aim to decrease instructor churn and enable TFA's mission of equity in education.
 - Segmented and interpreted candidate profiles using DBScan and KMeans algorithms to triangulate the source of the churn.
 - Designed and presented method to identify optimal candidate placements with over 95% accuracy using tree-based models.
- TEDxUT Austin Spring 2021 Speaker** Mar 2021
- Presented on the dangers of algorithmic bias through modern-day examples in data science/ML ([link](#)).
- Researcher, Writer | Towards Data Science, Open Data Science** Jul 2018 – Present
- Contributor to the largest publications on Medium for topics in data science and machine learning ([link](#)).
 - Projects involve ML algorithms (classifiers, regressors, etc.), data manipulation methods (multivariate imputation, hot-encoding, etc.), and statistical techniques (correlations, tests, sampling, etc.).

LEADERSHIP & CONTRIBUTIONS

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- Director, Marketing and Analytics Committee | Student Engineering Council** Sep 2017 – May 2021
- Organized "Hack for Good", a philanthropic hackathon co-hosted with Apple and EOG Resources; 100+ student attendees
 - Designed data pipeline with Airtable and a custom web scraper in Python to automate gathering participant information, extraction of insights.
- Member | Texas Undergraduate Computational Finance Group (UCF)** Sep 2017 – May 2021
- Analyzed securities using quantitative techniques (pairs trades, time series analysis) on alternative data from Bloomberg.

SKILLS

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- R, Python, JavaScript, C++, MATLAB, SQL, Airtable, Tableau, Snowflake, Amazon AWS, SolidWorks.
 - Strong familiarity with ML and ML libraries, data manipulation techniques, statistical tests, and financial analysis.
 - English, Spanish, Tamil, Hindi.