Arjun Lal

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EDUCATION

University of Pennsylvania Philadelphia, PA
BSE/MSE Candidate in Computer Science & Statistics (minor) | School of Engineering & Applied Science May 2020

- GPA: 3.80/4.00
- Coursework: Algorithms, Big Data Analytics (grad.), Modern Regression, Machine Learning (grad.), Time Series, Computational Linguistics (grad.), Mathematical Statistics, Investment Management, Corporate Finance

EXPERIENCE

Data Science Intern | Facebook, Menlo Park May 2019 – Aug 2019

- Identified user segments with potential to increase organic engagement on Stories using Python and SQL.
- Researched revenue growth opportunities given personalized ad-load on Stories using a GBDT model in Python.
- Presented findings on options for engagement and revenue growth to Data Science managers from across the company.

Teaching Assistant for CIS 320 (Algorithms) and CIS 121 (Data Structures & Algorithms) Dec 2017 – Dec 2018

- Taught topics such as dynamic programming, approximation algorithms, and flow networks during weekly office hours.
- Led group of 20 students in weekly recitations covering sorting, trees, heaps, graphs, hashing & greedy algorithms.
- Analyzed and debugged students' code and assessed programming assignments for style and efficiency.

Advanced Analytics Intern | TIAA, New York City June 2017 – Aug 2017 / June 2018 – Aug 2018

- Researched the relationship between market volatility and outflows from client assets using Tableau, Excel, and SQL.
- Conducted regression analyses on VIX and proprietary data segmented by time period and specific products.
- Developed and presented statistical model currently in use to predict likelihood of successfully acquiring potential clients.

PROJECTS

Event Driven Data Analysis of Airfare Prices (1st Place, 2018 Citadel East Coast Invitational Datathon)

- In team of four, used Python and R to build Latent Dirichlet Allocation Model (LDA) that modeled distributions of events across US cities and ran regression analyses to determine how event heterogeneity affects airfare prices and routes.

Pennbook

- In team of three, used Node.js, Express, and AWS to build small social network that supports friending, messaging, etc.
- Implemented a friend recommendation system in MapReduce based off of the adsorption algorithm.

Currency Exchange Simulator

- In team of three, used Java and JSoup to build program that scrapes web for real-time global currency exchange rates.
- Implemented arbitrage identification using all-pairs shortest path algorithms given a user's currency preferences.

SKILLS

Intermediate: Java, Python (NumPy, pandas, scikit-learn), SQL
Beginner/Learning: R, OCaml, JavaScript, CSS, Tableau, Matlab

ACHIEVEMENTS AND HONORS

- 1st Place, 2018 Citadel East Coast Invitational Datathon (recipient of $20,000 cash prize)
- Dean's List, 2016 - 2019
- 2nd Place, 2017 University of Pennsylvania Class of 1880 Mathematics Prize
- Qualifier (top 2.5% in nation), American Invitational Mathematics Examination (AIME), 2014 - 2016

ACTIVITIES

Co-President | Penn Undergraduate Mathematics Society (PUMS)

- Oversaw board meetings and club operations for over 50 members.
- Developed and coordinated informal lectures with professors and students to discuss research being done on campus.

Quantitative Investment Strategies Team Member | Wharton Investment and Trading Group (WITG)

- Selected into group to learn about topics relevant to quantitative finance, such as portfolio replication and smart beta.