CAT NGO

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EDUCATION

Harvey Mudd College *Expected Graduation May 2020*
Joint Computer Science and Mathematics (B.S.) *Major GPA 3.73*
Relevant Coursework: Computer Insights, Data Structures and Program Development, Discrete Mathematics, Algorithms, Intermediate Lingear Algebra, Intermediate Probability, Independent Study: Intro to Statistical Learning, Machine Learning, Logic and Computability, Abstract Algebra, Real Analysis

EXPERIENCE

Software Development Engineer, Intern – *Seattle, WA* June 2019 — August 2019
Remitly, Inc - Pricing Team

- Implemented API endpoint to fetch history of pricing rules and designed the UI to reference that history, leading to greater ease-of-use and productivity for pricing analysts to set offered exchange rates
- Implemented dimensioned scrapers that retrieved pricing data from competitor, increasing data processing throughput by 5 times as measured by the number of queries per day
- Redesigned the representation of pricing quote to allow for better readabilty of the economics logic behind a quote
- Developed database that persisted transaction quotes and integrated it with platform codebase, allowing for after-the-fact access of the pricing quotes of enqueued transactions

Computer Science Tutor/Grader – *Claremont, CA* August 2017 — Present
Computer Science Department

- Tutor students and grade assignments for Intro to Computer Science (Fall 2017), Computer Insight (Spring 2017), Data Structures (Fall 2018) and Algorithms (Fall 2019)

Sports Data Analyst – *Claremont, CA* August 2017 — January 2018
Claremont-Mudd-Scripps Mens' Basketball

- Scraped play-by-play logs of games from 2016-2017 season of the Mens' Basketball Team
- Automated statistical analysis of the performance of five-player lineups in Python
- Applied analysis to generate practical team strategy recommendations and presented findings to Head Coach

PROJECTS

Predicting Book Ratings with Collaborative Filtering – *Python* April 2019 — May 2019

- Applied matrix factorization model with bias to predict users' ratings of books, using solely a dataset of books' ratings
- Applied grid-search to fine-tune model hyperparameters, improving training RMSE by 66% and achieving a final validation RMSE of 3.4

Chunky String Data Structure – *C++* April 2018 — May 2018

- Implemented generic Chunky List data structure that dynamically stores arbitrary data in a linked list of arrays
- Wrote constant-time insert and erase functions for the data structure

March Madness Modeling and Prediction – *Python* March 2017

- Scraped statistics from teams in the past 6 tournaments in NCAA D1 Tournament
- Applied genetic optimization to generate weight vectors predicting winner in head-to-head matchup with >60% accuracy

SKILLS

Programming Languages	Python, Java, C++, SQL, JavaScript, PHP, Racket, R, HTML/CSS
Software Libraries	JDBI, Lombok, Jackson, Numpy, Scikit-Learn, Surprise, React
Utilities	Forge, Jenkins, Docker, Gradle, LaTeX, Git, Markdown