

CAT NGO

github.com/catngo

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EDUCATION

Harvey Mudd College

Joint Computer Science and Mathematics (B.S.)

Expected Graduation 2020

Major GPA: 3.80

Relevant Coursework: Computer Insights, Data Structures and Program Development, Discrete Mathematics, Intermediate Linear Algebra, Intermediate Probability

In progress: Neural Networks, Logic and Computability, Abstract Algebra

PROJECTS

Data Structures and Program Development: Chunky String – C++

May 2018

- Implemented templated data structure Chunky List that stores elements in a linked list of arrays
- Implemented constant and non-constant iterators with insert and erase functions that optimize memory utilization

Independent Project: CMS Mens' Basketball Analytics – Python

June 2017 — December 2017

- Scraped play-by-play logs of games from 2016-2017 season of the Mens' Basketball Team
- Collected statistic for each five-player lineup and presented data to the team's Head Coach
- Assisted team with collecting lineup data during the season

Independent Project: March Madness Prediction – Python

March 2017

- Scraped statistics from teams in the past 6 tournament in NCAA D1 Tournament
- Used genetic algorithm to generate a weighting vector to predict winner in head-to-head matchup

Project for Computer Insights: Prediction of Salary – Python

December 2016

- Trained a random forest classifier on the Census Income dataset from UCI to predict whether an individual makes more than \$50k/year

SKILLS

Programming Languages

Python, C++, Java, Racket, R, HTML/CSS, Latex

Software Libraries

Numpy, Pandas, BeautifulSoup, Matplotlib, Scikit-Learn

JOB EXPERIENCE

Physics Academic Excellence Tutor – Claremont, CA

August 2018 — Present

Physics Department

- Hold tutoring sessions twice a week for Core Physics courses
- Go to staff meetings every week and brainstorm staff development

Computer Science Tutor and 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) and Data Structures (Fall 2018) courses

Physics Tutor and Grader – Claremont, CA

January 2018 — May 2018

Physics Department

- Hold a 2-hour tutoring session each week and grade assignments for Mechanics course

EXTRACURRICULAR ACTIVITY

Honor Board Class of 2020 Representative

January 2017 — May 2018

Disciplinary Board Chair

May 2018 — Present