Brendon Gu

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EDUCATION

Carnegie Mellon University Pittsburgh, PA May 2022

B.S. in Mathematics (Statistics Concentration), Minor in Computational Finance, Minor in Computer Science
Cum. QPA: 3.75/4.0

Coursework:

Differential Equations, Real Analysis, Operations Research, Numerical Methods, Mathematical Finance
Probability Theory, Statistical Inference, Modern Regression
Machine Learning, Artificial Intelligence, Functional Programming, Theoretical Computer Science

EXPERIENCE

Regeneron Pharmaceuticals Canceled due to COVID-19 - Summer 2020
Prospective Advanced Analytics Intern Sleepy Hollow, NY

AMAG Pharmaceuticals May 2019 - July 2019
Data Analysis Intern Waltham, MA

- Developed custom SQL queries to retrieve and process patient safety data from ArisGlobal database.
- Designed visualizations and analytical dashboards in Tableau to present case processing metrics and facilitate medical event signal detection.
- Provided Tableau training and guidance to pharmacovigilance and medical teams.

CMU Student Academic Success Center Feb 2019 – Present
SI/EXCEL Leader, Concepts of Mathematics / Calculus in 3D / Differential Equations Pittsburgh, PA

- Completed semester-long training course in effectively facilitating supplemental instruction sessions using collaborative instructional techniques.
- Plan and lead weekly small-group sessions for traditionally challenging math courses.

PROJECTS

Tableau Iron Viz 2020 Jul - Aug 2020

- Researched and compiled data about diets and created a long-form interactive visualization in Tableau for the 2020 Tableau Iron Viz Qualifier.
- Selected as **Runner Up, placing 6th** out of over 370 entrants.
- **Link:** https://tabsoft.co/3a1gUIf

ML Algorithm Implementation Summer 2020

- As part of course in machine learning, implemented several ML algorithms from scratch using Python including logistic regression, backpropagation, forward-backward algorithm, and Q-learning.

NFL Big Data Bowl Dec 2018 - Jan 2019

- With partner, used statistical modeling in R to create an expected catch probability model and to consider new standards for pass interference; proposed a novel two-level system for interference calls.
- Selected as **one of four college finalists** in the inaugural event and presented findings to members of the NFL league office, team executives, and league sponsors at the 2019 NFL Combine in Indianapolis.
- **Paper:** operations.nfl.com/media/3667/big-data-bowl-cmu.pdf

SKILLS

Languages: Python, R, C, C++, SQL, HTML/CSS
Visualization: Tableau, ggplot2, matplotlib/seaborn, d3.js

ACTIVITIES

CMU Sports Analytics Club Aug 2018 - Present
CMU Club Ultimate Frisbee Aug 2018 - Present