

# Harry Y. Wang

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## EDUCATION

### Duke University

08.2016 — 12.2019

Double BSc in Computer Science and Statistics GPA: 3.71

Relevant Coursework: Machine Learning (CS671), Design and Analysis of Algorithms (CS330), Statistical Consulting (STA440), Software Design (CS308), Data Mining and ML (STA325), Operating Systems (CS310), Bayesian Methods & Modern Stats (STA360)

## EXPERIENCE

### Machine Learning Consultant, IQVIA

08.2018 — 08.2019

- Created an automated ML platform to impute missing data with up to 97% accuracy
- Performed data analysis on HR data to identify factors related to employee retention
- Utilized GANs for generating photo-realistic images to aid in medical imaging

### Machine Learning Intern, IQVIA

05.2018 — 08.2018

- Implemented ML to create synthetic data from PHI datasets without risk of identification
- Designed a new patent-pending protocol to validate the accuracy of data up to 96%
- Created a model architecture to formulate new drug compounds in drug discovery

### Software Engineering Intern, Seedr

05.2017 — 08.2017

- Created a prototype in GoLang that aims to improve current WebDAV standards by 200%
- Designed the prototype by researching which modern network protocol should be used
- Analyzed the impact of different congestion control algorithms on P2P protocols

## PROJECTS

### ML Stock Market Prediction and Algorithmic Trading

08.2018

- Used a CEFLANN to classify and predict next day stock price index movement
- Mined and feature engineered SP500 data for training and index indicators
- Designed a trading strategy with an overall 30% total returns (2017-2018)

### Drug Generation

07.2018

- Built a GAN model to generate 3D drug compound structures to aid in discovery
- Trained the model using data scraped from DrugBank with labels for desired traits
- Plans to integrate with a system to validate the generated drugs on feasibility

### Data Visualization in Political Sphere

05.2018

- Built a web app that allows a user to monitor and visualize political data
- Utilized the GMaps API and data to show members of congress (MoC) by state
- Visualized a 3D graph of MoC clustered by state and color coded by party affiliations

## LEADERSHIP & EXTRACURRICULARS

### Teaching Assistant, Discrete Maths

01.2018 — 05.2018

- Lectured 15 students weekly on math proofs for algorithm correctness and analysis
- Held office hours and graded student work weekly on mathematical concepts

### Secretary, Brownstone Living Group

05.2018 — 12.2019

- Provided administrative support to members by maintaining schedule and event calendars
- Composed weekly reports and established work procedures to track member tasks

## SKILLS

Language Skills: English Native Proficiency; Mandarin Fluency