

Allen Wu
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EDUCATION

Stanford University Stanford, CA
MS, Management Science & Engineering. GPA: 3.92/4.00. 2016 – 2018

University of Chicago Chicago, IL
BA, Mathematics. GPA: 3.89/4.00. 2011 – 2015
Honors: Phi Beta Kappa, Dean's List, National Merit Scholarship

COURSEWORK

Computer Science: Mining Massive Data Sets, Deep Learning, Algorithmic Techniques for Big Data, Design and Analysis of Algorithms, Decision Making Under Uncertainty, General Game Playing

Decision Theory: Risk Analysis, Stochastic Modeling, Financial Risk Analytics, Professional Decision Analysis

EXPERIENCE

BitGo Palo Alto, CA
Data Engineer 2018 – 2019

- **Analytics Database:** Developed and maintained a business analytics database and accompanying ETL pipeline to facilitate faster, more adaptive business and product analytics via sanitized and curated platform data.
- **Business Metrics Reporting:** Built reporting infrastructure and designed dashboards to measure BitGo's business health, spanning system balance to transaction flow to user activity.
- **Data Requests:** Fulfilled time-sensitive data requests to facilitate board presentations, enable product managers, diagnose billing errors, respond to legal inquiries and financial audits, and more.

Stanford Stanford, CA
Course Assistant, Introduction to Decision Making Summer 2017

- **Teaching:** Wrote and graded homework assignments and exams, held office hours, and advised students on a course project to apply the tools taught in class in consultation with real business partners.

PROJECTS

Probabilistic Risk Analysis of Colorado Wildfires Spring 2018

- Worked with public officials, wildfire experts, and firefighters to determine the costs and benefits of implementing the International Wildland-Urban Interface Codes in Jefferson County, Colorado.
- Designed and implemented a Markov time-series model to predict wildfire behavior and damages.

SBA Loan Risk Analysis Winter 2017

- Explored and cleaned data sets, evaluated different modeling approaches, and researched financial tooling to predict loan default rates and assess the riskiness of asset-backed securities.
- Implemented linear and logistic regression, a hazard rate model, and a basic neural network, comparing the accuracy, sensitivity, and specificity of the different methods.

Playing Blackjack with Deep Q-Learning Winter 2017

- Implemented a blackjack state-machine following typical casino conventions.
- Constructed and trained a deep Q -network in PyTorch to try to learn the optimal policy for blackjack.

SKILLS

Fluent: Python (NumPy, SciPy, PyTorch, Pandas, Matplotlib), SQL

Conversational: NodeJS, Java, Clojure, Julia, TensorFlow, R, Stata, Spark, Mandarin

Communication: L^AT_EX, Markdown, Google Suite, Microsoft Office

INTERESTS

Magic: the Gathering

- Winner of PT 25th Anniversary, GP Albuquerque 2016, GP Cleveland 2019, and GP Las Vegas 2019.
- Currently ranked #4 on the live Elo leaderboard, with a rating of 2215.
- Built models to analyze tournament results, improve in-game decision-making, and forecast player behavior.
- Published articles on channelfireball.com and hareruyamtg.com, two of the top Magic content websites.