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: LaTeX, Markdown, Google Suite, Microsoft Office

Interests

Magic: the Gathering

- Winner of PT 25$^{\text{th}}$ 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.