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

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.

Wizards of the Coast — Renton, WA
Game Design Contractor — *2017 – 2018*

- **Game Development**: Provided insight on the entertainment value, competitive balance, and replayability of new expansions for Magic: the Gathering, a strategy card game played by over 10 million people.
- **Challenger Decks**: Principally designed the 2018 Challenger Decks series, a popular product aimed to give aspiring competitive players an affordable entry point into tournament play.
- **Analytics**: Built tools to consolidate internal testing, analyze card files, interpret tournament results, 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.

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.

Magic: the Gathering Hand Simulation — *Winter 2017*

- Developed a Monte Carlo simulation framework for generating and interpreting opening hands, using it to determine how consistent particular decks are and to find optimal deck configurations.

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 25th Anniversary, GP Albuquerque 2016, GP Cleveland 2019, and GP Las Vegas 2019.
- Currently ranked #2 on the live Elo leaderboard, with a rating of 2267.
- 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.