

Allen Wu  
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## EDUCATION

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<b>Stanford University</b> <i>MS, Management Science &amp; Engineering. GPA: 3.92/4.00.</i>	Stanford, CA 2016 – 2018
<b>University of Chicago</b> <i>BA, Mathematics. GPA: 3.89/4.00.</i> <i>Honors: Phi Beta Kappa, Dean's List, National Merit Scholarship</i>	Chicago, IL 2011 – 2015

## EXPERIENCE

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<b>BitGo</b> <i>Data Engineer</i> <ul style="list-style-type: none"><li>• <b>Analytics Database:</b> Lead development of a Node ETL pipeline and PostgreSQL data warehouse to facilitate greater, faster, and more secure access to key business data.</li><li>• <b>KPI Reporting:</b> Worked with product and business stakeholders to build dashboards gauging BitGo's KPIs, spanning system balance to transaction flow to user activity.</li><li>• <b>Specialized Queries:</b> Fulfilled time-sensitive data pulls to satisfy legal requests and financial audits, in preparation for board meetings, and to diagnose billing errors.</li></ul>	Palo Alto, CA 2018 – 2019
<b>Wizards of the Coast</b> <i>Game Design Contractor</i> <ul style="list-style-type: none"><li>• <b>Play Design:</b> Developed new expansions for Magic: the Gathering, a strategy card game played by over 10 million people worldwide. Worked in a 10-person team to maximize fun, competitive balance, and replayability.</li><li>• <b>Challenger Decks:</b> Lead design of the inaugural Challenger Decks series, a successful product line providing new players an entry point into competitive play.</li></ul>	Renton, WA 2017 – 2018
<b>Stanford</b> <i>Course Assistant, Introduction to Decision Making</i> <ul style="list-style-type: none"><li>• <b>Teaching:</b> Wrote and graded homework assignments and exams, held office hours, and advised students on their course projects applying decision analysis tools in consultation with real business partners.</li></ul>	Stanford, CA Summer 2017

## PROJECTS

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<b>Probabilistic Risk Analysis of Colorado Wildfires</b> <ul style="list-style-type: none"><li>• Collaborated 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.</li><li>• Designed and implemented a Markov time-series model to predict wildfire behavior and damages.</li></ul>	Spring 2018
<b>SBA Loan Risk Analysis</b> <ul style="list-style-type: none"><li>• Cleaned data sets, evaluated modeling approaches, and researched financial tooling to predict loan default rates, ultimately assessing the riskiness of asset-backed securities.</li><li>• Implemented linear and logistic regression, a hazard rate model, and a basic neural network, comparing the predictions, accuracy, and sensitivity of the different approaches.</li></ul>	Winter 2017
<b>Playing Blackjack with Deep Q-Learning</b> <ul style="list-style-type: none"><li>• Implemented a blackjack state-machine, following casino conventions.</li><li>• Constructed and trained a deep <math>Q</math>-network in PyTorch to learn the optimal policy for playing blackjack.</li></ul>	Winter 2017

## SKILLS

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**Fluent:** Excel, SQL, Python (NumPy, SciPy, PyTorch, Pandas, Matplotlib)  
**Conversational:** NodeJS, Java, Clojure, Julia, TensorFlow, R, Stata, Spark, Mandarin  
**Communication:**  $\LaTeX$ , Markdown, Office

## INTERESTS

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**Magic: the Gathering**

- Winner of PT 25<sup>th</sup> Anniversary, GP Albuquerque 2016, GP Cleveland 2019, and GP Las Vegas 2019.
- Ranked #1 on the live Elo leaderboard with a rating of 2303, earning \$152,050 from 2018-2020.
- Co-lead a team of 20+ players to solve complex strategic and statistical problems in narrow time frames.
- Top-level competition demands composure facing high stakes, volatility, and incomplete information.