Michael Hu

myhu@princeton.edu ◦ 678-908-2031 ◦ github.com/mikkyhu

EDUCATION

BSE in Computer Science, Princeton University
Princeton, NJ. September 2017 - May 2021

- Certificate: Statistics and Machine Learning
- GPA: 3.88 / 4
- Coursework: Theoretical Machine Learning, Deep Learning for Natural Language Processing, Computer Vision, Models of Cognition, Theory of Algorithms, Differential Equations, Real Analysis, Probability

EXPERIENCE

Research Intern - Princeton Natural Language Processing (PNLP), Narasimhan Lab
Princeton, NJ. September 2019 - Present

- Calibrated GPT-2, a deep learning language model, to produce text more consistent with English. Conceived and implemented approximation algorithms to reduce computation costs.
- Training neural networks to learn reward values of an environment to aid in reinforcement learning.

Software Engineering Intern - Roblox, Trust and Safety Team
San Mateo, CA. June 2019 - August 2019

- Decreased average response time of backend service by 3x through a simplified caching layer. Onboarded five engineers to code base; spearheaded testing and rollout of the service. (C#, Docker).
- Classified chat messages using BERT, a deep learning language model. Identified bad actors in the Roblox community by training BERT and using zero-shot learning to classify game files. (Python, PyTorch)
- Automated the labeling of training data for BERT using Snorkel, a data programming package. Briefed 20+ Roblox engineers and data scientists on Snorkel and its use cases. (Python)

Creative Solutions Intern - BatteryPOP, via the Princeton Startup Immersion Program
New York, NY. June 2018 - August 2018

- Enabled startup to generate ad revenue from yaasgames.com by adding spots for banner ads and videos. Populated yaasgames.com with 100+ HTML5 games via a third party API. (Wordpress, HTML, CSS, PHP)
- Built a BatteryPOP-branded game in Roblox as a proof of concept. Showcased the game to the CEO and VP of Sales, explaining possible paths towards monetization. (Roblox Studio, Lua)

Research Intern, Computational Biology - Albert Einstein College of Medicine and Georgia Tech
Bronx, NY and Atlanta, GA. December 2014 - May 2017

- Simulated and visualized previously-unknown RNA structures by designing a new folding algorithm (Python). 1st place at the regional science fair; results published in *Biochemistry*.
- Identified abnormal DNA mutations through regex-based sequence analysis. Handled file sizes in excess of 2GB by writing efficient scripts (R). Presented findings to department; results published in *Cell Reports*.

Personal Project - Disci
Princeton, NJ. May 2018 - March 2019

- Built a virtual card game that teaches chemistry to high school students. Acted as the project's "CTO", defining Disci's architecture and game design. Collaborated with 2 fellow Princeton juniors. (Unity, C#)
- Alpha tested the game with 30 Princeton students. Pitched Disci to the Princeton eLab summer accelerator.

SKILLS

Languages: Proficient with C#, Python, JavaScript, and R. Familiar with Java, C, HTML, CSS, and PHP.
Data Science: PyTorch, NumPy, SciPy, Pandas, matplotlib, Sagemaker, EC2, CUDA, Jupyter.
Web Development: WordPress, Node.js, .NET Core, REST API, Docker, Container Orchestration, HashiCorp Stack.

ACTIVITIES AND INTERESTS

Activities: Lead Teaching Assistant, Discrete Math. Careers Chair, Princeton Association for Computing Machinery
Hobbies: Breakdancing, journaling, cooking