

EDUCATION

B.S. Computer Science and Math

University of Chicago

10/2018 - 06/2022

Major GPA: 3.75

- Computer Systems, Computer Architecture, Parallel Computing, Theory of Algorithms, Complexity Theory

SKILLS

Python

TensorFlow

Scikit-Learn

Numpy

Pandas

Pytorch

C

R

Git

AWS

GCP

WORK EXPERIENCE

Deep Learning Research Assistant

Toyota Technological Institute at Chicago

08/2019 - Present

Chicago

- Single-handedly rewrote and refactored 18,000 lines of deep learning legacy code to use TensorFlow 2.0 and Python 3
- Improved performance of protein folding by 2% by reading hundreds of research papers and building different neural architectures
- Saved months of wait time by decreasing training time by over 45% and GPU memory usage by 50% through optimizing inefficient code
- Ensured correctness of code by writing over 1,500 test cases and assertions and rewriting old documentations

Machine Learning Research Assistant

University of Chicago Medicine

02/2019 - Present

Chicago

- Improved the World Health Organization's vaccine targets for viruses by up to 81% by designing a novel machine learning framework
- Saved months of wait time by speeding up a bottleneck function by a factor of 37,200 through refactoring legacy code and parallelizing functions
- Increased cardiac arrest prediction from 0.71 AUC to 0.93 AUC by improving feature engineering and tuning deep neural networks
- Reduced classification error rates of HIV survivability by 18% and parameters by 66% by designing a novel type of neural network
- Created machine learning models for three research papers that are about to be published, one of which I was the lead author

Deep Learning Intern

ShanghaiTech University

06/2019 - 08/2019

Shanghai

- Designed and implemented a novel deep learning algorithm that improved protein folding by 5% and decreased training time by 56%
- Sped up protein structure prediction by seven orders of magnitude faster than traditional folding methods by using my algorithm
- Solo-authored an 11 page research paper that was cited by researchers at Google and DeepMind
- Open sourced my code and collaborated with graduate researchers who used my algorithm to predict and analyze proteins

Software Engineer Intern

Finch

02/2019 - 06/2019

Chicago

- Built a website for a trading platform to improve the efficiency of financial transactions
- Used machine learning and natural language processing to extract important data from financial documents
- Communicated various designs and optimizations to improve efficiency and user experiences of the trading platform

Research Assistant

University of Chicago

10/2018 - 02/2019

Chicago

- Built deep neural networks to measure styles, moods, and emotions of Chicago artworks
- Built A.I. language models to understand how Yelp data can provide insight to how popular culture is changing over time