EDUCATION

University of California, Berkeley

B.A. Computer Science, College of Letters and Science

JUNE 2016 Major Gpa: 3.739

COURSEWORK:

- Artificial Intelligence
- Machine Learning
- Algorithms

- Operating Systems
- Performance Computing
- Computational Biology

WORK EXPERIENCE

OLD MISSION CAPITAL | Chicago, IL

Trader

Aug 2016 - Present

- Created statistical models for finding market inefficiencies though lots of analytical reasoning with even more trial-and-error.
- Wrote and upkept Python tools to automate daily tasks, reduce chances of human error, and improve overall productivity.
- Punted around millions of dollars daily.

OLD MISSION CAPITAL | Chicago, IL

Trading Intern

June 2015 - Aug 2015

- Used Scikit-Learn, and other Python tools to understand market trends through generating and visualizing statistical models.
- Created efficient parallel algorithms for faster data collection with more accurate and robust validation and error checking.
- Analyzed and documented the effects of US-based high-speed trading on the liquidity of foreign markets.

FUNDTASTIC | Palo Alto, CA

Writer

May 2014 - Aug 2014

- Researched and reviewed over 50 small business loans from various government and private lenders across the country.
- Worked closely with editors to ensure consistency in style and compliance with the company's writing guidelines.

PROJECTS

GPU COMPRESSION

This is a parallel implementation of LZSS compression for GPU. The goal of this project was to test whether or it is feasible to compress messages in parallel HPC applications to decrease bandwidth usage and overall compute time. Unfortunately, your network needs to be real bad for this to be worth anything. The implementation was written in CUDA and deployed on AWS.

IMGCOMPRESS

ImgCompress is a hackathon project aimed at becoming the future of compression. The algorithm works by uploading binaries to Imgur as PNGs and storing the 7 character Imgur URL. With a compression ratio of over 700 000, this is likely the single best compression algorithm in all the world: all in under 200 lines of Python. (Way better than the CUDA stuff I made.)

POKER AI (HEADS UP POT-LIMIT OMAHA)

I attempted to build a Heads Up Pot-Limit Omaha (HUPLO) AI using Monte Carlo search trees and some sort of machine learning. The preflop play of the AI uses machine learning on features of the hole cards such as connectivity, suitedness, and raw value. The postflop play relies on the MCTS. While the AI is rather bad at poker, it is passable at Tic-Tac-Toe.

SPORKLIST

SporkList is a web-app aimed towards the indecisive eater. Just as you can make playlist for music, SporkList is a playlist for food, shuffling up your restaurant library for you when you feel hungry and indecisive. SporkList was made using AngularJS and the nowdefunct Parse.

YET ANOTHER PERSONAL SITE | DEFDONTHIRE.ME

I'm not going to lie, I am awful at web development. Fortunately, technology has got me covered these days, since now literally anyone can go download Bootstrap and find a template, write some BS about themself and call it a personal site. And that's exactly what I did.

INTERESTS, SKILLS & INTANGIBLES

Hobbies: Hearthstone, Poker, Rocket League, Board Games, Reading the Manual

Languages: Python, Psuedocode, C (Reluctantly), Mandarin

Skills: INDEX-MATCH Fiend, Vim Connoiseur, Nash Equilibrium Hobbyist, "sudo rm -rf /" Frequent User

Intangibles: Enjoys friendly competition, clicks buttons really fast, uses 🖋 🍏 💋 liberally

