CHANNING PEAR

203-321-6513 | channing.pear@utexas.edu | github.com/pearsquirrel | channingpear.com

EDUCATION

2014-2018 **University of Texas at Austin, B.S. Computer Science, B.B.A. Finance** **Austin, TX**
Turing Scholar, Computer Science Honors Program (3.69 GPA)

WORK EXPERIENCE

Summer 2016 **Google, Software Engineering Intern** **Mountain View, CA**
Designed and implemented high-performance open-source Java distributed tracing API for the Google Cloud Platform
- Over 80% of Google's production services use the system, Census, to track RPC latency and for debugging
- Google's next-generation distributed messaging framework, gRPC, will be Census-enabled in the future
- Simplified internal codebase by wrapping legacy code with the new API's
- Developed an entirely new, native implementation from the ground up for open-source release
- Heavily contributed to the design of distributed tracing API's in other languages (Go, C++)

Summer 2015 **Bloomberg LP, Software Engineering Intern** **New York City, NY**
Developed premium financial analytics software and visualizations for a $100M target market using React and D3
- Designed and implemented custom visualizations to portray complex financial data
- Connected front- and back-end through HTTP endpoints and restructured 30,000 line front-end codebase
- Implemented backend pipeline to streamline the process of financial engineers validating submitted data

Summer 2014 **Beecher Investors, Software Developer** **Stamford, CT**
Implemented real-time financial data grabber with excel integration using Yahoo's YQL and the Google Finance API
- Periodically queries yahoo and google finance for the most recent stock information
- Caches the data in excel and groups requests so that requests aren't needlessly sent to the servers
- Stores retrieved information in a spreadsheet to hook into later to get accurate historical pricing info

SELECTED PROJECTS

ML Scheduler Implemented multiple types of process schedulers, including FIFO, LIFO, SJF, SRT, and a custom machine learning algorithm that uses I/O time, CPU time, and various other metrics to predict the optimal time to switch processes

Swim Scope Web app that scrapes an online database for the times of a specified group of swimmers, caches the results locally, and ranks the individuals in each of their events. Developed using Python, Selenium, Flask, and MongoDB

Web Crawler Indexes and searches a subset of the web. Supports compound queries and efficient phrase searching

Genetic Tetris Graphical Tetris game with an AI developed and optimized through a genetic algorithm

Web Dev Created over 10 websites for businesses, non-profits, educational groups, and teachers

Other Projects Image Filters, Markov Chains, Graphical Chess, Single-Cycle CPU, malloc and free, pre-emptive threading, automated software deployment system, mouse tracker chrome extension

PROGRAMMING COMPETITIONS

Spring 2016 **Machine Learning Competition, USAA DataHack @ UT Austin (Honorable Mention)**
Developed a model that predicts insurance holder enlistment status with 96% accuracy (competed with grad students)

Summer 2015 **Intern Hackathon @ Bloomberg (1st Place)**
Developed a 3D capture-the-flag game, along with a promotional video, on a team of three using Unity

Spring 2015 **Bloomberg Coding Competition @ UT Austin (2nd Place)**
Developed algorithmic stock trading software that sells/buys based on volatility, liquidity, and other calculated metrics

SKILLS AND TECHNOLOGY

Proficient Java, Python, C++, Git, Vim, LaTex
Exposure React, JavaScript, HTML5, CSS3, C, MySQL, MongoDB, Objective C, Bash

RELEVANT COURSEWORK

* denotes honors

CS Data Structures*, Discrete Math*, Computer Architecture*, Operating Systems*, Algorithms*
Math Statistical Modeling*, Vector Calculus*, Differential Equations, Linear Algebra

EXTRA-CURRICULARS

Youtube Grew "PearSquirrel" youtube channel to 4,000,000+ views & 10,000+ subscribers through Minecraft inventions
Trumpet Board member of 400-person band, 1st Chair Trumpet/Section Leader (Jazz and Concert Band) since 10th grade