

Education

University of Texas at Austin

December 2017

B.S. in Computer Science, Turing Scholars Honors Program

B.S. in Electrical Engineering, Integrated Circuits

GPA: 3.8240

Coursework: Graduate Operating Systems, Advanced Computer Architecture, Artificial Intelligence: Honors, Algorithms and Complexity: Honors, Linear Systems and Signals, Operating Systems: Honors, Embedded Systems, Circuit Theory, Computer Architecture: Honors

Technical Skills

- Experienced in Java, Python, C++, C
- Exposure to Verilog, Scala, ARM assembly, x86 assembly, JavaScript, SQL, Ruby
- Frequently use Linux environment, bash, git, perforce for development

Experience

Software Engineering Intern, Google

Summer 2016

- Designed new optimization for FlumeC++ backend to remove redundant read/write operations
- Modularized design to account for future improvements and ease of testing
- Implemented optimization tasks that could be run at any time and still maintain graph invariants

Software Engineering Intern, Tableau Software

Summer 2015

- Implemented a template processing engine using FreeMarker for generating server configurations
- Wrote Puppet manifests to deploy product code and support software
- Created extensive validation tests and automated current infrastructure

Software Engineering Intern, Tableau Software

Summer 2014

- Created ETL scripts to recover and transform product usage data for internal analysis
- Repaired and maintained existing data set for use by marketing and quality assurance teams
- Extracted data from varied data sources for import into Hive and Impala

Projects

R4Diant (Java)

- Worked with a team to prototype an open world exploration game in a style similar to Minecraft
- Optimized world loading using parallel processing to compensate for large world sizes.
- Created our own compression system for faster loading times and reduced file sizes

Advanced Computer Architecture (Verilog)

- Designed pipeline and out-of-order issue processors in Verilog
- Optimized processor designs using forwarding, caching, and static/dynamic branch prediction

Pacman AI (Python)

- Implemented several autonomous agents to play games of Pacman and variants on Pacman
- Utilized various types of search, inference, learning, and classification in the design of the agents

GheithOS (C++)

- Designed a simple operating system and shell by implementing common kernel abstractions
- Built a memory management system, file system, threads, and executable loading abilities

Web Crawler (Java)

- Designed a web page parser to crawl and index web pages for a search engine
- Created a search engine to process logical queries and retrieve crawled pages from a database