Ian Glen Neal

512-635-9155
ian.glen.neal@utexas.edu

Education

University of Texas at Austin **December 2017**

- B.S. in **Computer Science**, in the **Turing Scholars Honors Program**
- B.S. in **Electrical Engineering**, in the **Integrated Circuits Technical Core**
- **GPA: 3.81**
- **Related Courses**: Advanced Computer Architecture, Artificial Intelligence: Honors, Algorithms and Complexity: Honors, Linear Systems and Signals, Operating Systems: Honors, Introduction to Embedded Systems, Circuit Theory, Computer Architecture: Honors

Technical Skills

- Experienced in Java, Python, C++, C
- Exposure to Verilog, Puppet, ARM assembly (Thumb-2), x86 assembly, Ruby, Processing, JavaScript, SQL
- Frequently use Linux environment, bash/sh, git for development

Experience

Tableau Software [Software Engineering Intern] **Summer 2015**

- Implemented a template processing engine using FreeMarker that processed templates for generating configurations
- Wrote Puppet manifests to deploy product code and support software
- Created extensive validation tests for existing and new systems, and automated current infrastructure

Amherst Holdings LLC [Software Engineering Contractor] **December 2014**

- Designed and implemented a scalable web scraping system in Selenium for data collection across multiple and diverse internet data sources

Tableau Software [Software Engineering Intern] **Summer 2014**

- Created ETL scripts to recover and transform product usage data for internal analysis
- Worked heavily with data extraction from raw sources to Hive and Impala and maintenance of existing data to fit current needs

Projects

R4Diant [Java]

- Worked with a team to prototype a Minecraft-like open world game, and worked heavily on optimizing world loading to compensate for large world sizes.
- Created our own compression system and worked on parallel serialization and deserialization of objects for faster loading time and increased playability with less latency in file and cache operations

Advanced Computer Architecture [Verilog]

- Designed various processors in Verilog
- Optimized multiple processor designs using methods such as pipelining, forwarding, caching, static/dynamic branch prediction, and out-of-order issuing (variations on Tomasulo's algorithm)

Pacman AI [Python]

- Implemented several autonomous agents utilizing various types of search, inference, learning, and classification techniques

GheithOS [C++]

- Built a simple operating system and shell by implementing common kernel abstractions (including building a memory management system, file system, multithreading, and executable loading)

Web Crawler [Java]

- Designed a webpage parser that would crawl and index webpages, and a search engine to process logical queries