

Elijah M. Prenn

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Experience

HPE Primary Data Storage Intern (May 2017 to May 2018)

Internship on L1 HPE Primary Data Storage team. Responsibilities include maintaining continuous integration of L1 test libraries, collaborating with peers on developing new tools, refactoring source code of test libraries, and expanding unit tests of C++ and Python libraries/utilities. My contributions at HPE have increased code coverage of test libraries by 10%.

Boise State, Lab TA ECE330 microprocessors (August 2016 to December 2016)

Assisted students in debugging C and Assembly programs for the ARM Cortex-M4 microprocessor. Responsible for ensuring functionality of all labs before they were presented to students, as well as grading lab prep work, and verifying student's work at checkpoints as they completed the labs.

Nelson Irrigation (October 2017 to May 2018)

As a part of a class project for CS471, students formed small teams to tackle "real world" projects in an Agile development environment. This was a project that involved working on firmware for a remote valve controller. The valve controller regulates water flow through a valve(s) with respect to a watering schedule.

Volunteer, Idaho Humane Society (January 2013 to present)

Photo editor using Photoshop for online cat adoption page that is updated on a weekly basis. Previously dog handling, working at the help desk, and assisting with adoptions and events.

Education

Boise State University

Dean's List with High Honors: Fall 2014, Spring 2016, and Fall 2017

GPA: 3.46

Graduated in May 2018 with a B.S. in Computer Science.

Relevant coursework, Fall 2014 – Spring 2018:

- **CS 253 Intro to Systems Programming**
Design and develop programs of moderate complexity in C. Use shell commands, editors, debuggers, and memory checkers. Creating Makefiles, and using version control.
- **ECE 330 Microprocessors**
Worked with direct memory access, ARM Cortex M4 processor, Altera Nios II Development environments, processor, and software. Assembly language coding, in addition to C coding.
- **CS 361 Intro to Theory of Computation**
Proofs by reduction, limits of computability, theory of finite state machines as well as grammars.
- **CS 421 Algorithms** Design and analysis of algorithms including asymptotic analysis. Dynamic programming along with both greedy algorithms and graph algorithms. Covers Tractability and an introduction to NP-Completeness
- **CS 441 Computer Architecture**
Structures of various computer systems using processors, memory, input/output. To expand on ideas discussed in ECE330 including trade-offs involved in the design of computer systems and microprogramming.
- **CS 333 Network Security and Defense**
Topics include firewalls, virtual private networks, intrusion detection, intrusion prevention, traffic analysis, techniques for responding to network attacks.

- **CS 332 Ethical Hacking**
Studied various security concepts and presented on historical computer vulnerabilities and software bugs such as Heartbleed, EternalBlue, and Shellshock.
- **CS 453 Operating Systems**
Discussion of the structure and function of an Operating Systems. Creation of large pieces of software in stages. Touches on process management, virtual memory, security, as well as networking.
- **CS 410 Databases (In progress)**
Foundations of database management systems. Database models: relational, object and others. Database design: entity-relationship modeling, logical relational schema design, physical design, functional dependencies and normalization, and database tuning. Database application development using database interfaces embedded in host languages.

Skills

Languages: C, C++, Python, Java, ARM assembly.

Currently learning SQL/PostgreSQL

Software/Frameworks: Git, SVN, Jenkins CI, Adobe Premier, Microsoft Office Suite, Eclipse IDE, Google Test framework, XML, JSON.

Agile development environment.

Experienced in Windows and Linux/UNIX environments.

References

Recht, Nicholas Howard – HPE intern mentor
Phone: (406) 370 0917
Email: nicholas.recht@gmail.com

Frederick, Paul – HPE manager
Phone: (208) 863 2680
Email: paul.frederick@hpe.com

Fuqua, Chuck – HPE manager
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Peterson, Janel – Volunteer Coordinator at Idaho Humane Society
Phone: (208) 859 5418
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