Joseph Millsaps Fitzhugh Voss Jr.

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Education

Bachelor of Science, Mechanical Engineering, May 2018
The University of Texas at Austin

Related Courses

Parallel Computing, Advanced Mechatronics II (in progress), Programming and Engineering Computational Methods, Heat Transfer (in progress), Engineering Vibrations (in progress), Machine Elements (in progress), Material Engineering, Fluid Mechanics, Thermodynamics, Solids, Statics, Engineering Design and Graphics, Differential Equations, Matrices and Matrix Calculations, Engineer Statistics, Engineering Communication.

Study Abroad

IES Abroad: Vienna, Austria (2015)

Experience

Team Member, Student Cluster Competition: Spring to Fall 2016
Designing, built and managed a cluster of high performance compute nodes;
Developing remote power monitoring system using SNMP and Grafana;
Learning how to use several HPC applications: namely Linpack, HPCG, Paraview, and Hashcat;
Attended Supercomputing Conference 2016 to compete with student teams from around the world, placed 4th overall, despite lack of hardware.
Currently in the process of submitting a reproducibility study to the Parallel Computing journal.

Mechanical Engineer Intern, Trident Research LLC: Summer 2016
Designed and built charging system for naval buoys;
Created drawings and 3D models in Solidworks of custom parts;
Wrote embedded firmware for safe charging of buoys;
Completed acceptance testing for both custom and COTS parts;
Wrote and updated documentation of the naval buoy system.

Student Technician, Applied Research Laboratories: Summer 2015
Redesigned the method of reading/writing out RINEX files to use the OOP principle of encapsulation;
Updated the in-house code base to use the new RINEX objects for file I/O;
Extensive cataloging of the applications within the in-house code-base.

Student Technician, Applied Research Laboratories: Spring 2015
Created a suite of cross-compatible unit tests in C++;
Helped develop in-house testing framework;
Wrote documentation for how later unit testing should be executed.

Science and Engineering Apprentice, Applied Research Laboratories: Summer 2014
Developed an inexpensive COTS GPS data collection platform using Python;
Wrote software capable of decoding binary streams, translating them to the floating point representation, and writing out to formatted RINEX file;
Interfaced with GPS receiver mounted on a DIP via serial communication.

Skills

Proficient in Solidworks, C++, Python, Git, Linux management & development, Soldering, and MATLAB.
Basic machining and assembly experience.

Accomplishments

Terry Foundation Scholar, 2014-Current
Eagle Scout, Troop 3, Earned 2012
Presidential Achievement Scholar, 2014-2015
Captain, Texas Quidditch – Ravenclaw, Current
Member, Programmers in Science and Engineering, 2016-Current
Member, Gamma Beta Phi Honor Society, 2015-Current
Member, Robotics and Automation Society, 2014-Current