

Joseph Voss

5610 Abilene Trail, Austin, TX 78749, USA

<http://josephvoss.com> • (512) 517-0468 • josephvoss14@gmail.com

EDUCATION	Bachelor of Science, Mechanical Engineering , University of Texas at Austin	Aug 2014 – May 2018
	Related Courses: Advanced Mechatronics II, Parallel Computing, Programming and Engineering Computational Methods, Machine Tool Operation, Engineering Vibrations	
	Study Abroad , IES Abroad: Vienna, Austria	May 2015 – Jun 2015
EXPERIENCE	MultiMechanics	
	▪ DevOps Engineer	Jan 2018 – Present
	• Focused on making their software tools cross-platform and able to be build on Redhat and SUSE systems	
	• Configured and installed pbs-pro job scheduler to better share computing resources. Lead training on it's usage	
	• Worked on simplifying and stream-lining developer workflow	
	Texas Advanced Computing Center	
	▪ Student Intern, High Performance Computing	Jun 2017 – Aug 2017
	• Developed an automated HPC testing harness using Jenkins, PyTest, and CMake that integrates seamlessly with SLURM	
	• Created a heatmap visualization using Bokeh, showing historical degradation and improvement in system performance	
	• Wrote and presented a research paper describing the test harness developed at the HPC System Professionals Workshop at Supercomputing Conference 17	
	• Led several workshops describing the usage of the testing harness	
	▪ Team Member, Student Cluster Competition	Feb 2016 – Mar 2017
	• Designed, built and managed a cluster of high performance compute nodes	
	• Developed remote power monitoring system using SNMP, Graphite, and Grafana	
	• Learned how to use and profile several HPC applications	
	• Attended Supercomputing Conference 2016 to compete with student teams from around the world, placed 4 th overall	
	• Published a reproducibility study to the Parallel Computing journal.	
	Trident Research LLC	
	▪ Mechanical Engineer Intern	Jun 2016 – Aug 2016
	• Designed and assembled 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	
	Applied Research Laboratory	
	▪ Student Technician, Space and Geophysics Lab	Jan 2015 – Aug 2015
	• Created a suite of cross-compatible unit tests in C++ for open source software	
	• Developed testing framework based off CMake/CDash/CTest suite	
	• Redesigned the method of reading/writing out RINEX files to use OOP encapsulation	
	• Updated the in-house code base to use the new RINEX objects for file I/O	
	▪ Science and Engineering Apprentice, Space and Geophysics Lab	May 2014 – Aug 2014
	• Developed an inexpensive COTS GPS data collection platform using Python	
	• Wrote software capable of decoding binary streams, translating to the floating point representation, and writing out to formatted RINEX file	
	• Interfaced with GPS receiver mounted on a DIP via serial communication	
SKILLS	Solidworks, C++, Python, Git, Bash, LabVIEW, CMake, Jenkins, Linux management & development, Soldering, MATLAB, L ^A T _E X, Microsoft Word, Microsoft Excel, Basic machining and assembly experience.	
PUBLICATIONS	Voss, J., Garcia, J. A., Proctor, W. C., & Evans, R. T. (2017). "Automated System Health and Performance Benchmarking Platform." In <i>Supercomputing Conference '17: Proceedings of the 2nd international HPC System Professionals Workshop at SC'17</i> . New York, NY, USA: ACM. https://doi.acm.org/10.1145/3155105.3155106	
	Ababao, R., Garcia, J. A., Voss, J., Proctor, W. C., & Evans, R. T. (2017). "Student Cluster Competition 2016 reproducibility challenge: Genomic partitioning with ParConnect." <i>Parallel Computing</i> . https://doi.org/10.1016/j.parco.2017.07.002	