

# Owen Chiaventone

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Education	Bachelor of Science, Computer Engineering Missouri University of Science and Technology, Rolla, MO GPA: 4.00	Dec 2017
	Relevant Coursework	
	<ul style="list-style-type: none"><li>CpE 3150: Digital Systems Design, EE 3410 Digital Signal Processing, CpE E5410: Communications Networks, CS5400: Introduction to AI, CS5001 (provisional): Intro Deep Learning Agents, EE3600: Electromagnetics</li></ul>	
Work Experience	Year-Round Intern Sandia National Laboratories	Jun 2015 – Present
	<ul style="list-style-type: none"><li>Designed, Tested, and Integrated FPGA firmware</li><li>Hardware/software co-design for digital signal processing in constrained environments</li><li>Created validation / verification tools using Python, QT, Labview</li></ul>	
Volunteer Experience	Electrical Architect, Autonomous Systems Lead Missouri S&T Mars Rover Design Team	Sep 2013 – Dec 2017
	<ul style="list-style-type: none"><li>Won 2017 International University Rover Challenge (URC)</li><li>Wrote autonomous navigation and machine vision package (Only team to earn a perfect score in autonomy)</li><li>Developed electrical hardware and software for scientific sensor package</li><li>Implemented data acquisition and signal processing algorithms for novel low cost portable spectrometer design (see publications)</li><li>Oversaw transition of electrical subsystems to fault tolerant distributed architecture</li><li>Simulated, designed and fabricated custom high efficiency switching DC-DC power converters</li></ul>	
	Communication Subsystem Lead Missouri S&T MSAT Team January - May 2017	Jan 2017 – May 2017
	<ul style="list-style-type: none"><li>Initiated hardware &amp; firmware implementation of communications system from design documents</li><li>Used software defined radios (SDR) for systems verification and testing</li><li>Prototyped a ground station GUI with QT, including satellite tracking and hardware control</li></ul>	
Skills	Software and Programming Tools	
	<ul style="list-style-type: none"><li>VHDL (willing to learn Verilog), Python (incl. numpy, scipy, keras, jupyter), Embedded C, C++, MATLAB</li><li>Git &amp; Mercurial, Eagle, KiCAD, LaTeX, Modelsim, Linux, TI-RTOS, Microsemi Libero, Xilinx Vivado &amp; ISE, Quartus-II</li></ul>	
	Certifications	
	<ul style="list-style-type: none"><li>FCC Amateur Radio License, General</li></ul>	
Publications	Marshall, Frank E., et al. "A Simple and Cost Effective Raman-Fluorescence Spectrometer." <i>International Telemetering Conference Proceedings</i> . International Foundation for Telemetering, October 2015.	
	Chiaventone, Owen and Tuschoff, Stetson, "Inexpensive UHF Transceiver Leveraging COTS Components". <i>International Telemetering Conference Proceedings</i> . International Foundation for Telemetering, October 2017.	