

Brandon P. Smith

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Education:

M.S. in Computer Engineering

December 2017 California State University, Chico

B.S. in Mechatronic Engineering, B.S. in Mechanical Engineering – *Summa Cum Laude*

May 2015 California State University, Chico

Engineering Design Internship:

2016 – 2017

Chico State McLeod Institute

Chico, CA

- Helped develop power system simulation project for NAVSEA.
- Programmed soft microprocessors in Xilinx FPGAs.
- Updated firmware to AXI bus standard.
- Updated firmware to include UDP and TCP functionality for network communication.

Engineering Design Internship:

2015 – 2016

California Mechatronics Center

Chico, CA

- Worked with a team to design an earthquake sensor for Lawrence Livermore.
- Developed embedded system for sensor's internet communication.
- Developed MQTT application for IOT sensors.
- Designed, documented, and conducted tests for sensors.
- Improved testing speed considerably via automation scripts.

Programming/Game Design Instructor:

2014 – 2015

CORE Butte Charter School

Chico, CA

- Created and taught curriculum to high-school students in both C++ and Game Design.
- Guided students to create their own games.

Professional Skills:

- C, C++, Assembly, Python, Visual Basic, Ladder Logic, Verilog, VHDL, FreeRTOS, Galil DMC, Matlab, Labview, Solidworks, Pspice, WebGL, Javascript, MQTT, Neural Networks.
- Effectively design and model mechanical and electrical elements for systems.
- Write concise papers, labs, and reports.
- Work efficiently and effectively in group environments.

Projects:

- Designed, programmed, and fabricated a rice-cake machine for Lundberg Family Farms.
- Developed neuroevolution program to play Super Mario Bros.
- Designed H.264 encoder to run on an FPGA for VR video compression.
- Developed a light and sound tracking system with PID control.
- Developed an automated water bottle crusher.

Community Activities:

- Vice-president of the Chico State 3D-Printing Club. 2014 - 2015
- Chess teacher/aide at Chico Christian School. 2004 - 2011
- Piano player at Calvary Chapel Chico. 2008 - Present
- Tau-Beta-Pi – Honor Society. 2014 - Present