
EXPERIENCE

NASA

📍 Washington, D.C.

Goddard Space Flight Center

Computer Engineering Co-op, BETTII Project Jan - May 2014

Code 665: Astrophysics, Observational Cosmology Laboratory

- BETTII Project: <http://asd.gsfc.nasa.gov/bettii/>
- Balloon telescope for infrared interferometry
- Interfaced with stellar image processing software in C and C++
- Developed StarTracker software for star cameras
- Created an RS-422 communication network on an FPGA

L-3 Communications

📍 Grand Rapids, MI

Avionics Systems

Computer Engineering Co-op May - Sep 2013

- Designed software to configure and test avionics instruments
- Developed GUIs in C using LabWindows/CVI
- Tested units under environmental conditions and analyzed data

Custom Electronics, Inc.

📍 Grand Rapids, MI

Engineering Consulting

Computer Engineering Co-op Nov 2011 - May 2013

- Programmed 8-bit Microchip microcontrollers in C using MPLAB X
- Wrote software for scientific instrumentation buoys
- Designed a series of eight electric guitar effect pedals
- Designed electrical schematics and PCBs in Altium Designer

INTERESTS

Languages, travel, machine vision, cryptography, computer security, hiking, backpacking, dogs, brewing, physics