

JOSEPH GIBSON

COMPUTER ENGINEER

EDUCATION

B.S.E, Computer Engineering
Grand Valley State University
Allendale, MI

August 2015

GPA: 3.95 Magna Cum Laude

ASEE CEED National Co-op Student of the Year 2014
Academic Excellence Award in Computer Engineering
Dean's List Every Semester
FIRST Robotics Engineering Scholarship
Award for Excellence Scholarship
Faculty Award of Distinction Scholarship

Tau Beta Pi Engineering Honor Society
President of Spanish Club
President and Founder of Brewing Science and Technology Club
Vice President of Hardware, Computer Science Club

SKILLS

C	<div><div></div></div>
C++	<div><div></div></div>
Java	<div><div></div></div>
Python	<div><div></div></div>
VHDL	<div><div></div></div>

Git version control	FPGAs (VHDL & LabVIEW)
Unix Terminal (gdb, make, etc.)	Electrical schematic and PCB-design (Altium, Eagle, KiCad)
LaTeX	SPICE Simulation (LTspice)
Adobe Illustrator	Oscilloscopes and mutimeters
ARM assembly language	Space Systems and Telescopes
Perl, Bash, Awk, Sed	Ruggedized Computers
HTML, CSS, PHP	Avionics Systems
JavaScript, jQuery	Embedded System Design
Objective C (iOS and OS X)	Regulator Design
Android Apps (Android Studio)	Robotics
Operating Systems concepts	Circuit Analysis
Cryptography concepts	Electromagnetic Physics
Network Security concepts	Cosmology
TCP/IP Networking & Data Comm.	Particle Physics
Wireshark and packet logging	

LANGUAGES

English	<div><div></div></div>
Spanish	<div><div></div></div>
French	<div><div></div></div>
Russian	<div><div></div></div>

EXPERIENCE

RFCx

San Francisco, CA

Rainforest Connection

Senior Project Team Leader

2015 - Present

Combat illegal deforestation in Brazil and other rainforests with re-purposed solar-powered Android phones mounted to trees

Remote detection of chainsaws, engines, and gunshots

PCB Design - Solar Power Control - Android App Design

CERN

Geneva, Switzerland

European Center for Nuclear Research

Research Assistant, ATLAS Experiment

2014 - 2015

Research in Quantum Chromodynamics & proton-proton collisions at Large Hadron Collider

Wrote software in C++ and Python on SLC6

Co-developed the Spectrum plotting software

Designed website spectrum.web.cern.ch

NASA

Washington, D.C.

Goddard Space Flight Center

Computer Engineering Co-op, BETTII Project

2014

Code 665: Astrophysics, Observational Cosmology Laboratory

BETTII Project: <http://asd.gsfc.nasa.gov/bettii/>

High altitude, far-infrared balloon observatory for star formation

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, Test Software

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

2011 - 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, culture, cryptography, computer security, mountain climbing, hiking, brewing