Daniel Hamilton

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Qualifications

- Experience programming in HTML, CSS, Javascript, jQuery, Node.js, Express, BASH, Python, C, MySQL, PHP
- Knowledge of circuit analysis and design, soldering techniques, digital logic, circuit drafting, microcontroller programming in C for PIC devices
- Experience managing Nginx and Apache Linux servers, both physical and virtual

Academic Studies

UNIVERSITY OF ROCHESTER — ROCHESTER, NY

Bachelor of Science in Electrical and Computer Engineering — **May 2013**

Selected Coursework: Web Programming, Python Programming, Data Structures, Microprocessors and Embedded Systems, Advanced Computer Architecture, Integrated Circuits Design and Analysis, Circuit Analysis, Communications, Digital Music and Signals, Computer Organization, Signals and Circuits, Differential Equations, Logic Design.

Work Experience

SKYIMD — SAN CARLOS, CA

Electrical Engineer — **May 2014-July 2015**

- Lead projects regarding research and integration of new technologies into company products
- Circuit board layout, design, assembly, and installation of airborne video processing and data streaming systems
- Design, programming, and maintenance of company web page (www.skyimd.com)
- Shell scripting on Linux AXIS video encoders
- Python programming for data management and image processing

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THERMEDICAL WALTHAM, MA

Electrical Engineer **July 2013-January 2014**

- Circuit board design, layout, and assembly for RF ablation systems
- Assembly of preclinical ablation systems
- C programming for PIC microcontrollers and Linux single-board computers (Beaglebone, Raspberry Pi)
- Assistance in experiments of preclinical ablation systems.

Project Experience:

- **www.DanHamiltonOnline.com:** Designed and built a personal web page for hosting personal projects, using HTML/CSS, Javascript, jQuery, node.JS, Express, and nGinx.
- **AXIS on-screen GPS readout (SkyIMD):** Created a process to poll a serial GPS and overlay position data on-screen over the live video feed from a wing mounted camera gimbal using an AXIS video encoder and Linux shell scripting.
- **Beaglebone Controller System (Thermedical):** Designed a touchscreen interface on the Beaglebone single-board computer (running linux) using the GTK C library to control a medical ablation system through serial communication
- **Interactive surround-sound system (University of Rochester):** With 3 others, created a 4-speaker system that adjusts the volume of each speaker as you move closer or further away from it to create the illusion that you are always in the center of the room
- **Web Design Final Project (University of Rochester):** Created a social networking website for finding and joining game tournaments using PHP, MySQL, Javascipt, HTML, and CSS
- **Processor Design (University of Rochester)**: With partner coded and simulated in Verilog a simple processor consisting of a 16-bit ALU and a 16-entry 16-bit register file.

Other Interests

- Marathon Runner, Boston Marathon top 500 finisher
- Piano player and music producer