MICHAEL HO

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project experience

Dev Bootcamp
Sproutify
August 2013

- An application that connects people to locally grown food in a fun and accessible way
- Developed as a single page application without a Javascript framework
- Employed the Google Maps API to show nearby users
- Implemented a dynamic filter to change which users are shown on the Google Map using the MVC pattern in Javascript
- Used Handlebars for client-side templating
- Developed the style and user interface of the application
- Acted as the development lead on a four-person team

Harvey Mudd College
Analog Electronics Class – Spectrogram
September 2008 - December 2008

- Built an LED spectrogram representing the signal from a 3.5 mm audio connector
- Used an oscilloscope to verify and debug different subsections of the circuit

work experience

Opto 22
Embedded Systems Engineer
June 2010 - May 2013

- Developed a scheduled, asynchronous communications protocol for Altera FPGAs connected over a multi-drop network
- Replicated of functionality by ASICs reaching end-of-life using Altera FPGAs
- Created test firmware on the Nios II embedded processor to verify custom FPGA functions
- Implemented Cyclone III and Cyclone IV FPGAs in schematic design and printed circuit board design
- Modified existing firmware to expand the functionality of the SNAP-SCM-ST2, a serial communication device that provides pulsed output and direction signals for stepper motors
- Debugged firmware on a Freescale ColdFire processor running the Nucleus RTOS
- Participated in design reviews before ordering printed circuit boards
- Debugged of newly received hardware
- Worked in a self-directed manner with little management

education

Dev Bootcamp
World-Class Beginner
June 2013 - August 2013

Harvey Mudd College
Bachelor of Science, Engineering
September 2006 - May 2010

Selected Coursework

- Microprocessor Systems
- Robotics
- Engineering Electronics
- Digital Electronics and Computer Engineering
- Systems Engineering
- Engineering Design

web skills

Languages
- Ruby
- Javascript
- HTML
- CSS
- HAML
- SASS
- Handlebars

Frameworks
- Ruby on Rails

Libraries
- jQuery

Version Control
- git
- Subversion

Testing
- RSpec
- Capybara
- Unit Testing/TDD
- End-to-end Testing

other skills

Software
- Quartus II IDE
- Nios II IDE
- CodeWarrior
- jEdit
- MPLAB IDE
- Xilinx ISE
- Solidworks
- MATLAB

Languages
- Verilog
- Assembly
- C/C++ for embedded systems

Other
- Oscilloscope
- Logic Analyzer
- Soldering/ Reworking