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
- Implemented a browser to show data from users within the Google Maps' bounding box using the MVC pattern in Javascript
- Implemented a filter to filter users being shown on the Google Map using the MVC pattern in Javascript
- Used Handlebars for client-side templating
- Developed the style and user interface for the application
- Acted as project manager 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 - Present
- Development of a scheduled, asynchronous communications protocol for Altera FPGAs connected over a multi-drop network
- Replication of functionality by ASICs reaching end-of-life using Altera FPGAs
- Creation of test firmware on the Nios II embedded processor to verify custom FPGA functions
- Implementation of Cyclone III and Cyclone IV FPGAs in schematic design and printed circuit board design
- Modification of 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
- Debugging firmware on a Freescale ColdFire processor running the Nucleus RTOS
- Participation in design reviews before ordering printed circuit boards
- Debugging of newly received hardware
- Work 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
- Unit Testing
- TDD

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