

Craig Ropi

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Amazon Robotics [Kiva Systems]

N. Reading, MA

June 2012- Present

Electrical Engineer

- Designed several PCBAs within an autonomous robotic system; examples include a 5kW brushless DC motor driver, a battery management system, a wireless proximity detection receiver, and an IR-enabled wireless communication link between the robot and its automated charging system
- Technical leader of a 5-engineer multidisciplinary team working to design and validate an automated charging system in partnership with a power supply manufacturer

Ferro Solutions, Inc.

Woburn, MA

Nov. 2010 – June 2012

Electrical Engineer

- Designed simulations, schematics and layouts of PCBAs for magnetic near-field communication and wireless power transfer systems
- Wrote, reviewed, and edited technical investment proposals, reports, presentations and provisional patent applications

General Dynamics C4 Systems

Needham, MA

June 2009 – Oct. 2010

Systems Engineer

- Wrote and tested design requirements for a Windows/UNIX encryptor manager
- Designed and presented a demonstration at a user's conference in Las Vegas, NV

Measurement Computing Corp.

Norton, MA

May 2008 – Aug. 2008

Hardware Engineering Intern

- Designed a PCIe, digital I/O, data-acquisition product and oversaw its market release

Software: Schematic Capture [Altium Designer, PADS Logic, DxDesigner], Layout Design [Altium Designer, PADS Layout, Allegro Viewer], MATLAB, Simulink, LTspice, and Onshape 3D modeling.

Equipment: Spectrum analyzer, Impedance analyzer, Lock-in amplifier, Current probe, Programmable load, Thermal camera, Digital I/O devices, Function generator, Oscilloscope, and several custom-made pieces of equipment

Programming Languages: Some experience with Bash, C, C++, HTML/CSS, Java, MATLAB, Python, and VHDL

Training/Certifications: Exida Introduction to IEC 61508, MIT Design of Motors, Generators, and Drive Systems (Professional Education Short Program)

Worcester Polytechnic Institute

Worcester, MA

Aug. 2005 – May 2009

Bachelor of Science in Electrical and Computer Engineering with Computer Science Minor

GPA: 3.53 Class of 2009

Projects:

English Needs Assessment of Hong Kong University of Sci. & Tech. Students:

- Traveled to Hong Kong to evaluate and improve a university (HKUST) English language program

Sudden Infant Death Syndrome (SIDS) Detector:

- Designed, built and tested a heart monitor fit for an infant in under seven weeks

Class D Audio Amplifier (NECAMSID Lab):

- Designed a class D audio amplifier prototype with over 95% power efficiency

Coursework:

Analog IC Design

RF Circuit Design

Microelectronic Circuits

Software Engineering

Semiconductor Devices

Advanced Digital System Design