

Rachel Heil

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EDUCATION

Wentworth Institute of Technology, Boston, MA
Bachelor of Science in Electromechanical Engineering
Merit Award Scholarship

Exp. May 2010

RELATED COURSES

- Intro. to Nanotechnology
- Analog Circuit Design
- Electromechanical Systems
- Embedded Computer Systems
- Digital Systems
- Signals and Systems
- Motors and Controls
- Feedback and Controls
- Adv. Mechanics of Materials
- Engineering Dynamics
- Thermodynamics and Heat Transfer
- Eng. Fluids

SOFTWARE RELATED SKILLS

- MATLAB
- AutoCAD
- SolidWorks
- PSpice
- Agilent VEE
- C programming
- LabView
- Java programming
- MathCAD

TECHNICAL SKILLS AND EXPERIENCE

- Soldering including fine pitched soldering
- Analyze printed circuit boards
- Digital multimeter
- Function generator
- Oscilloscope
- Tensile testing
- Mechanical testing equipment

DESIGN/LAB WORK

Automated Smart Pet Feeder January 2008 – May 2008

- Designed pet feeder which allows only one pet to eat from food dish, restricting another
- Design allows owner to determine exact time as well as how much pet eats
- Designed to be low cost, easy to use, health management system for busy pet owners
- Operates using programmable microcontroller, stepper motor, and sensor and transmitter system
- Worked with a team of four to complete design project

Automatic Bicycle Lubrication System

September 2009 – May 2010

- Designing a system to fully clean and lubricate a bicycle chain
- Design will be fully automatic at the push of a single button
- Versatile design to fit any bicycle regardless of size and speed
- Designing to be a portable, lightweight, user-friendly system with non-expert riders in mind

WORK EXPERIENCE

Massachusetts General Hospital, Boston, MA

Utilities and Engineering Intern

June 2009 - August 2009

- Became familiar with HVAC systems throughout the hospital
- Helped with energy usage and conservation analysis
- Worked to accomplish other necessary tasks at hand including work in AutoCAD and Excel

BioScale Inc., Cambridge, MA

Electronics Intern

May 2008 - August 2008

- Learned by working hands on to solder, populate, test and analyze printed circuit boards for custom systems
- Recommended product modification based on testing and analysis
- Worked closely with engineers and other interns to accomplish tasks at hand

Engineering Matters @, Inc., Newton Upper Falls, MA

Electromechanical Intern

May 2007 - August 2007

- Worked closely with engineers in design and test processes
- Worked hands on by manufacturing, producing, and helping design products to be shipped out to customers
- Worked mostly in the electromechanical, power electronics, electromagnetic, and valve actuator fields

LEADERSHIP EXPERIENCE

- Member of the Office of Student Leadership Programs Fall 2005 – Present
- Soar in Four, a four year leadership development program Spring 2007 – Present
- Wentworth Events Board, Travel/Special Events Coordinator Fall 2008 – Spring 2009
- Wentworth Opening Week, Program Assistant August 2008

References are available upon request.