

Andrew Harner

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Education

Worcester Polytechnic Institute (WPI), Worcester, MA

Bachelor of Science in Electrical and Computer Engineering (ECE) - (GPA, 2.9/4.0) May 2011
Minor in Computer Science (CS)

Project Experience

Personal Android Project: Cloud Surfer **November 2011 to Current**

- 'Cloud Surfer' is an app that I decided to make to learn more about Android development
- Levels for the game are built on a web-based HTML-5 site I made, and then downloaded to the app to play
- Released an Alpha stage release of the app to Android Market for testing purposes ('Cloud Surfer')

Software Engineering: WPI Suite **March to May 2009**

- Worked as a team of 15 undergraduates to develop a fully functional software suite for project management, including a web interface
- Helped the team by focusing on implementing a user-friendly GUI design and other tasks related to the software suite and project management as we met deadlines and presented our software each week
- Developed in Java, using SWING for the GUI, and SVN Repository to share code among the team

Major Qualifying Project: Amazon EC2 Benchmarking **August 2010 to March 2011**

- Evaluated feasibility of replacing onsite department servers with Amazon EC2 on a team of 4
- Set up Fedora on Amazon's Cloud server and installed and ran SPEC benchmark
- Determined that Amazon's Computing Cloud solution was not cost effective for the department

ECE Design Project: Roof Snow Hazard Detection Meter **March to May 2009**

- Team of 3 tasked with the problem of designing a device that could detect a hazard and trigger an alarm to help prevent injury or a hazard to people
- Prototyped a device that would be used to detect when there was too much weight on a roof and to sound an alarm when the weight got close to a certain threshold, a MSP430 microcontroller was at the heart of the prototype we designed and demoed at our final presentation
- Involved in all aspects of product development, including research, financial analysis, design, and prototyping

Interactive Qualifying Project: Santa Fe Municipal Electrical Utility Project **January to May 2010**

- Worked on a multidisciplinary team of 4 to determine the feasibility of the City of Santa Fe owning and operating their own electric utility
- Researched our topic in 7 weeks and then spent 7 weeks working on the project in the Santa Fe and interacting with local decision makers
- Assumed the role of team leader and took care of any programming challenges that came up, and worked to setup meetings with our contacts, including local city officials and local environmental groups
- Used GIS layers of the City to determine costs of the electrical infrastructure, at roughly \$100 Million
- Demonstrated in final presentation to the City a tool I created that could be used to help plan power distribution throughout the City and to analyze how solar power and other green technologies could be integrated into the grid using a computer model of the City, programmed using NetLogo, an agent-based programming modeling environment

Technical Proficiencies

Languages: Java, PHP, JavaScript, C, VHDL, HTML, SQL

Applications: Microsoft Office, Eclipse, Photoshop, Maya, Xilinx, MATLAB

Various: Windows, Android, Linux

Activities

WPI Social Committee - Planned and provided large and small programming events to campus. (2007-2011)

Treasurer (2010) – Oversaw six budgets totaling about \$250,000, helped run exec meetings

Advertising Co-Chair (2009) – designed advertisements for events, publicity stunts, social media