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Education

Virginia Polytechnic Institute and State University, Blacksburg VA
- Overall GPA of 3.80

B.S., Computer Engineering, graduated summa cum laude, December 2013
- In-major GPA of 3.78

B.S., Computer Science, graduated summa cum laude, May 2013
- In-major GPA of 4.0

Work Experience

IBM Extreme Blue Internship, IBM 501, RTP, NC Summer 2013
- Worked on cloud-based monitoring, analysis of problems on an application level, and providing solutions to application-level problems.
- Wrote a RESTful API with the Ruby (1.9) language.
- Wrote unit tests with proper mocking of material using Ruby's MiniTest library.
- Worked with the Lucene query language for unstructured data.
- Wrote additional documentation using Markdown syntax.
- Constructed a Ruby Gem for the product so it could be packaged and shipped quickly.
- Conceptualized a unique mobile user experience to display data in an uncluttered and simplistic manner.
- Gained experience with pitch-oriented presentations for a product by presenting to IBM vice presidents and fellows.

CS 3114 Undergraduate TA, Virginia Tech, Blacksburg, VA Spring 2013
- Aided undergraduate students with course material and assignments involving advanced data structures and search algorithms, particularly using the Java language.

IBM Rational Quality Manager Co-Op, IBM 501, RTP, NC Summer/Fall 2012
- Worked on Rational Quality Manager defects and enhancements written in Java.
- Worked on RQM Import Tool for Microsoft Word/Excel defects and enhancements written in C#.
- Gained experience with industry team communication and large-scale product development.
- Worked with Rational Team Concert for source control, reporting, and task management.

Microprocessor Platform Evaluation, Virginia Tech, Blacksburg, VA Spring 2011
- Tested features and reported the pros and cons of various microprocessor boards being considered as replacements for the Spartan 3E Starter Board.
- Wrote hardware-oriented test code in C.

Undergrad Research

Auburn Unmanned Aerial Vehicle Research, Auburn, AL Summer 2011

- Researched various collision avoidance algorithms and determined possible ways they could be applied to real-time UAV flight.
- Assembled auto-pilot boards to be integrated with UAVs.
- Implemented a physics-inspired algorithm in C++ to work with the ROS Framework used by the UAVs.
- Won competition between three teams for best algorithm performance.

Web-CAT Javassist Research, Virginia Tech, Blacksburg, VA Fall 2010

- Researched ways of using Javassist libraries to dynamically alter bytecode when loading class files.
- Used Javassist libraries to alter student-written test cases to use reflective-based libraries.

Side Projects

ACM Website, HTML 5, CSS 3, Javascript, Markdown, Eco Fall 2013

- Wrote base ACM website for Virginia Tech during a weekend.
- Used semantic HTML 5 and CSS 3 (rounded borders).
- Wrote Javascript to integrate with Google's Calendar through a REST API and update the page using AJAX techniques.
- Statically templated the website using Docpad and languages like Markdown and Eco (embed Coffeescript logic in your markup).