Andrew Booth

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Summary

Experienced and open-minded undergraduate student with the objective of obtaining a position as a computer engineer or programmer. Gained experience in controls engineering and modeling software development at Corning Inc.'s Sullivan Park R&D center. Relevant skills:

Working experience with:
- Allen-Bradley PLCs
- Rockwell Automation software
- Python Flask web framework
- HTML/CSS/JavaScript
- MATLAB
- Visual Basic for Applications

Proficiency in:
- ARM architecture and assembly language
- MIPS assembly language
- C/C++
- Java & Processing
- OSX, Windows and Unix

Experience

Intern with Corning Inc., *Corning, NY*   **June 2015 – August 2015**
- Built web application for remotely controlling mobile phones through an automated SMS interface using the Flask web framework and the Twilio Python API
- Learned with basics of PLC system design including ladder logic, virtual axis gearing, and human-machine interface design
- Assisted in encoder system connection verification using wiring schematics and Rockwell software
- Determined process for analyzing and improving efficiency in controller IP networks

Contractor with Corning Inc., *Corning, NY*   **June 2013 – January 2015**
- Improved proprietary application-specific modeling software written in VBA by reducing runtime by >10x and developed graphical interface to improve usability for other company employees
- Used and analyzed Micro-Epsilon confocal scanning laser polarimeter and Tropel Flatmaster for usefulness in active project

TA with School of Engineering and Applied Sciences, *Buffalo, NY*   **September 2013 – Present**
- Guided first year engineering student project teams
- Graded and organized assignments, carried out data entry

Education

Pursuing Computer Engineering B.S. at University at Buffalo, *Buffalo, NY*   **September 2012 – May 2016**
- By May 2016 will have completed courses covering software engineering, hardware/software integration, VLSI, operating systems, machine learning, and database concepts
- Have completed courses covering the following topics: microprocessors, ARM assembly language, real-time & embedded operating systems, computer organization, data structures, circuit analysis, and differential equations
- Member of Tau Beta Pi honor society
- Current cumulative GPA: 3.908/4.000

Östra Gymnasiet, *Stockholm, Sweden*   **September 2011 – May 2012**

Projects

ARM Bomberman – Worked with a partner to design and implement Bomberman arcade game purely in ARM assembly, run on an LPC2138 Education Board

.edu Homepage Scraper – Web scraper programmed to pull data about various universities' homepage's web technology, including basic tag complexity and script & style resources

Drone Control and Deployment – Program developed in C designed to simulate delivery drone events, complete with task queuing and collision detection & avoidance

Verilog ALU Design – 32 bit arithmetic logic unit developed in Verilog based on the MIPS bit-slice processor architecture