Benjamin D. Mayes

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EDUCATION

Bachelor of Science, Master of Science Computer Science
Rochester Institute of Technology, Rochester, NY, expected May 2013
Major: Computer Science
Minors: Mathematics (in progress), Psychology (in progress)
GPA: 3.97/4.00

COMPUTER SKILLS

Languages: C, C++, Haskell, Java, Standard ML, Python, Ruby, x86 assembly, MIPS assembly, Bash, LaTeX
Operating System Experience: Linux, Mac OS X, Windows, Solaris

PROJECT WORK

Cumulonimbus: 32-bit x86 operating system written from scratch. (C, x86 assembly) (Spring 2011)

- VESA drivers and a graphics library built on top of them.
- Display and input multiplexing system built on top of the process system.
- Mouse and keyboard drivers.
- Math library using the x87 floating point unit.
- Overhauled build tree to organize the monolithic kernel and increase modularity.

archlib: A library for CPU simulation. (C++) (Summer 2011)

- Took code written for Sun's C compiler and ported it to compile under GCC 4.X.

Voting Manipulation Framework: A framework for experimenting with various methods of election manipulation. (C++) (Summer 2010)

- Implemented the concepts of a generic vote and a generic voting system.
- Implemented several voting systems with the generic framework.
- Provided the ability to modify an election's votes and candidates on the fly.

EXPERIENCE

CSI Undergraduate Research Fellow Summer 2010
RIT, Rochester, NY

- Read current research on computational complexity of different forms of election manipulation.
- Developed a framework for simulating election manipulation.
- Presented findings at the RIT Undergraduate Research Symposium.

Computer Science Theory Tutor Fall 2010, Winter-Spring 2012
RIT, Rochester, NY

- Tutored students on topics in theoretical Computer Science.

Student Lab Instructor Fall 2011 (Python), Winter-Spring 2012 (C++)
RIT, Rochester, NY

- Assisted Computer Science students with their lab work both inside and outside of the lab.
- Graded submitted lab work and provided feedback.