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EXPERIENCE

Satori Software (<http://www.satorisoftware.com>)

January 2006-present

Software Engineer

- Designed and implemented the file layout and core algorithms for a database storing every postal address in the United Kingdom (30 million entries).
- Maintained Satori's Move Update server, a service that performs queries against the USPS change-of-address database. Diagnosed and eliminated scalability problems that were encountered as the service's load expanded.

Debian Project (<http://www.debian.org>)

October 2000-present

Debian Developer

- Worked with the Debian Project, a worldwide volunteer organization dedicated to producing a high-quality, free, Linux-based operating system.
- Created the aptitude package management frontend (approximately 38,000 lines of C++ code and 12,000 lines of DocBook XML documentation)¹.

NASA AMES Research Center

June 2003-August 2003

(<http://www.arc.nasa.gov>)

Summer Internship through NASA's Education Associates program

- Worked on the Livingstone project, a model-based engine for automated diagnosis of and recovery from hardware failures on spacecraft.
- Studied and implemented techniques for artificial intelligence, particularly automated logical inference (A^* search, etc).

EDUCATION

The Pennsylvania State University

September 2002-May 2005

Master of Science in Computer Science and Engineering

- Thesis: "Static Encapsulation Analysis in Featherweight Java".
- GPA: 3.80

Brown University

September 1998-May 2002

Bachelor of Arts in Computer Science, Magna Cum Laude

- GPA: 3.55 overall, 3.81 in Computer Science

SKILLS

- Programming languages:
 - C++:
 - * 9 years experience.
 - * Wrote a template library to partially automate the creation of readers for binary file formats from a high-level description of the binary file.
 - * Wrote a 38,000 line frontend application to manage Debian software packages.
 - * Wrote a 15,000 line terminal interface library based on the libsigc++ templated callback library.
 - Python:
 - * 8 years experience.
 - C#:
 - * 2 years experience.
 - Additional experience in languages including SQL, Ocaml, Lisp, Coq, and Haskell.
- Document creation in \LaTeX and in Docbook XML.
- 7 years UNIX/LINUX experience, including software development and system administration (primarily Debian GNU/Linux).

¹Statistics refer to version 0.4.10, released December 15, 2007; lines-of-code are calculated by sloccount.