Adam Hupp

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SKILLS
- Fluent in Java, Python and C++. Conversational Haskell, O'Caml, PHP and Scheme
- Proficient with Linux (9 years as primary desktop, hupp.org, work experience)
- HTML, CSS, XML (personal projects and website)
- SQL on PostgreSQL, SQLite, Oracle
- Computer graphics, OpenGL API, Maya
- Version control (CVS, Subversion), Eclipse, Emacs, Ant, Unit testing (JUnit)

EXPERIENCE

Staff Engineer, Emageon (October 2003 – present)
- Promoted from Sustaining Engineer, to Engineer, to Technical Principal/Staff Engineer.
- Team lead (6 engineers) on redesign of large client/server Java application to support multiple simultaneous servers. Responsible for design, development and schedule estimation. Performed on-site client demos and requirements collection.
- Created a Java RPC framework with transport over HTTP/SSL. Solution utilized a hardware SSL accelerator and cluster of Servlet-based Jetty webservers.
- Improved image rendering performance by a factor of 9.
- Developed a Java class file parser in Python for detection of unused classes.
- Developed a Windows service for local caching of selected image data. Improved image access time by a factor of 5 for remote users. Wrote comprehensive JUnit tests.
- Telecommuted for 3 years; strong self-management and written communication skills.

Short-Term Consultant, Environmental Science and Engineering Dept., University of North Carolina-Chapel Hill (2006)
- Implemented Python program for atmospheric data extraction by porting an existing Fortran program. Used the Numeric Python extension for multi-dimensional dense array handling.
- Built data graphing tool with the Python matplotlib library.

Associate Research Specialist, Computer Graphics Laboratory/Surgery Department, University of Wisconsin-Madison (2002)
- Developed software in C++ and Python for the visualization, registration and analysis of histological slides of the mouse vascular system.
- Embedded Python interpreter in C++ application with boost::python and SWIG.

Coordinator, Undergraduate Projects Lab, UW-Madison (1998 – 2002)
- Volunteer coordinator of student run lab for extracurricular computer science projects.
- Implemented user management system with PostgreSQL and Python.

Systems Administrator, Center on Wisconsin Strategy, UW-Madison (2000-2001)
- Developed a web application in PHP and PostgreSQL for access to county statistics.

Systems Administrator, Keck Laboratory for Human Brain Imaging, UW-Madison (2001)

Research Assistant, Laboratory for Affective Neuroscience, UW-Madison (2000)

EDUCATION

University of Wisconsin-Madison, Madison, WI
- B.S. in Computer Sciences (Major GPA 3.4), 2003
- Concentration in computer graphics (animation, vision, imaging research)

SELECTED
PERSONAL
PROJECTS

· **hcc** – Compiler for subset of C language (Haskell).

· **feedcse** – Generate a Google Custom Search Engine from RSS feeds (Python, SQLite).

· **dsw** – Automated notification of missing Debian Linux security updates (Python).

· **frames** – Web application for presenting a tag-based photo gallery (Python, SQLite, Turbogears).

· **dustsmudge** – Dust removal from photographs (Scheme).

· **spambayes** – Performance enhancements to Bayesian classifier (Numeric Python).

· **emacs** – Python 3000 and reload support in emacs22 python-mode (elisp, Python).

· **untitled** – Summarize survey results for public interest organization (XML, O'Caml).

· **resume** – Written summary of my skills and experience (LaTeX).

AWARDS

· UW-Madison Computer Sciences Department Summer Research Grant.

· UW-Madison Computation and Informatics in Biology and Medicine Short-term Trainee.

· Student stipend to attend USENIX Annual Technical Conference. Wrote summaries of conference talks for USENIX magazine.

· National Merit Finalist, Eden Prairie High School. National award for top 3% PSAT score.

OTHER
INTERESTS

I enjoy photography, travel, distance running and rock climbing.