

Dan Helfman

Current Address

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Phone & Email

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Experience

Luminotes.com

Software Engineer / Founder

Seattle, WA
May 2007 to Present

Designed and implemented web-based personal wiki software in Python and JavaScript with a PostgreSQL backend. Developed multi-user collaboration features including wiki sharing, revision tracking, and conflict notification. Built a visual WYSIWYG wiki editor with transparent server persistence. Integrated with an e-commerce provider for recurring subscription billing. Deployed and maintained a production application server running Linux and Apache.

CoCo Communications

Software Development Engineer / Team Lead

Seattle, WA
July 2004 to April 2007

Led a team of software developers through five major releases of a VoIP communications suite. Designed and built applications in C++ and Python for use with a mesh networking protocol, including a conferencing system allowing emergency responders with cell phones, land-mobile radios, and PDAs to talk together in a single call. Spearheaded the implementation of a streaming audio library with support for RTP, GSM, Speex, loss concealment, adaptive jitter buffering, and subtraction mixing. Instrumental in the requirements gathering, design, and development of a cross-platform SIP-based VoIP client supporting seamless call handoff between 802.11 and cellular data networks. Designed a graphical network management application supporting distributed service discovery.

TrustCommerce

Senior Software Engineer

Pasadena, CA
May 2002 to July 2004

Developed software in C to run a geographically distributed network of high-performance, fault-tolerant credit card processing nodes. Led the design and implementation of a credit card fraud detection system in C++ employing neural network-based machine learning. Created a multi-threaded credit card batch processing system in Python, handling several million dollars in transactions per week with round-the-clock availability. Integrated with Amazon's SOAP/XML merchant services API.

Jim Henson's Creature Shop

Software Developer / Systems Administrator

Burbank, CA
October 2000 to May 2002

Led the design and implementation of a 32-node Linux render farm cluster using Sun's Grid Engine, including custom render tracking software to split up and reassemble rendering jobs to allow parallel processing. Programmed embedded animatronics software and drivers in C and C++ to support synchronous RS-232 communication for use in various Hollywood movies. Implemented analog-to-digital drivers in C for use with the Real-time Linux kernel.

Linuxcare, Inc.

Software Developer

San Francisco, CA
June 2000 to October 2000

Implemented TCP/IP-based network discovery and remote system management servers for Maxtor SAN devices running embedded Linux. Extended the Linux kernel to allow live disk drive repartitioning for an embedded Linux SAN product.

Sterling Software / Raytheon Company

Software Developer

NASA Ames Research Center, CA
October 1996 to June 2000

Developed and maintained web-based Perl/CGI registration and discussion software used by many NASA projects. Designed and implemented a platform-independent remote administration front end to legacy query tracking software.

Santa Clara County Social Services Agency

Systems Administrator

San Jose, CA
June 1996 to September 1996

Created and administered the Agency's first intranet web server.

Skills

Computer Languages

Proficient in Python, C, C++, and JavaScript. Working knowledge of Java, PHP, Perl and Bash shell. Passing familiarity with Lisp and Haskell.

Computer Systems

Experienced in the administration and operation of Debian GNU/Linux. Familiar with Red Hat Linux and Windows XP/2003/Mobile.

Computer Software

Skilled in Subversion (svn), GNU Compiler Collection (gcc), GNU Debugger (gdb), Vim, STL, Boost, Swig, PostgreSQL, L^AT_EX, and wxWidgets.

Education

University of California, Los Angeles

B.A. in Philosophy, 2002

Activities

Coderific

Lead Developer

www.coderific.com
2006 to Present

Developed a PostgreSQL-based, Python-powered web site for software developers to rate their employers.

Torsion Operating System

Lead Developer

www.torsion.org
2000 to 2008

Developed an orthogonally persistent x86 operating system with a log-structured filesystem designed and built from scratch.

Debian GNU/Linux

Developer

www.debian.org
2000 to 2007

Adapted Mandrake's Libdetect and Haddrake hardware detection software to the Debian platform. Packaged OpenAL 3D audio library for Debian.

UCLA Linux Users Group

Founding Member

www.linux.ucla.edu
1998 to 2003

Administered www.linux.ucla.edu web and FTP servers, designed web pages, coordinated install fests, and hosted guest speakers.