

300 E. Seminary Street
Mercersburg, PA 17236
(717) 328-5499

Frederick Henle

<http://fredhenle.net/>
fredhenle@gmail.com
(717) 404-1613

PROFILE

Master's degree in Computer Science with broad technical skills and a history of using open source web technologies to solve problems and create communities. A quick study and self learner who loves to code and create beautiful things. Happy user of Unix since 1988 and Linux since 1994, and an expert Emacs user. Recent web projects include wiki-wikis and web applications built with LAMP and Ruby on Rails.

EDUCATION

Dartmouth College, *Hanover, NH* **1994–2001**

- work toward Ph.D. in Computer Science, 1997–2001.
- **M.S.** in Computer Science, 1997. NSF Graduate Minority Fellow, 1994–1997.

Harvard University, *Cambridge, MA* **1988–1992**

- **A.B.** in Computer Science *cum laude*, 1992. Harvard College Scholarship for academic achievement of high distinction. Dean's list all semesters. Extensive coursework in Mathematics.

TECHNICAL SKILLS

- **Current Languages/Interfaces:** HTML/XHTML/CSS/JavaScript, Python/VPython, PHP, MySQL, Ruby/Rails, CGI, Java, C/C++, Bash, Emacs, TeX/LaTeX/mfpic, PmWiki
- **Stuff I used to know:** OpenGL/GLUT/GLUI, X11/Xlib/Xt, BASIC, FORTRAN, Pascal, LISP, Prolog, Perl, Tcl/Tk, PostScript, MATLAB, GHOST, LilyPond, 3DSMAX
- **Operating Systems:** Linux, Mac OS X, Windows XP/2000/NT/9x, FreeBSD, Irix, HP-UX, OSF/1, AIX, Ultrix, SunOS, VMS

TECH EMPLOYMENT AND ACTIVITIES

Mercersburg Academy, *Mercersburg, PA* **2001–present**

- **Faculty.** Developed and taught intro CS courses (using Python/VPython), and AP (using Java). Set up and administered computer lab running Ubuntu Linux, using NFS and NIS for student accounts. Coauthored and typeset a 200+ page Geometry study guide with 250+ diagrams, using LaTeX and mfpic. Identified and filled needs for web applications using Linux, Apache, MySQL, and PHP (LAMP), including:
 - on-line approval voting system for student and faculty elections and surveys
 - senior projects website, including on-line forms which generate PDF
 - logbook for dorm faculty to track student misbehavior
 - practice log for string ensemble students
 - web-based automatic digital photo organizer

Dartmouth College, Hanover, NH

1994–2001

- **Research Assistant** to Prof. John Danskin (Graphics, Data Compression) 1994–1997; Prof. Bruce Donald (Animation, Haptics) 1997–2001.
- **Mathematical Typesetter.** Used \LaTeX to typeset every single written homework assignment, as well as several conference papers and grant applications.
- **Best Presentation Award.** PHANTOM Users Group Workshop, 1999. Also gave a presentation at ICRA 2000.
- **Teaching Assistant.** Software Engineering, 1997. Intro. to Comp. Sci., 1998.
- **Web Developer.** Wrote Perl CGI script for long distance phone bill splitting between housemates. Created website and searchable alumni directory for a music camp, and for a high school reunion. Wrote a Perl CGI script to demonstrate quantum cryptography (later rewritten in PHP). Wrote Java applets demonstrating point-line duality and a space-filling curve.
- **User Support.** Designed and implemented consistent cross-platform shell and X11 user environment for Computer Science Department.

Smith College, Northampton, MA

1992–1994

- **Programmer.** Implemented the XVT portability toolkit API in the X Window System to port applications for calculus project. Performed various user support and system administration tasks under HP-UX and Irix.

University of Massachusetts, Amherst, MA

summers 1989–1990

- **Programmer.** Research assistant to Prof. Donald St. Mary of the Math Department. Self-taught FORTRAN from VMS FORTRAN manual. Wrote FORTRAN code to graph contour plots of 2-D data (later rewritten in C). Wrote FORTRAN, Unix shell scripts, and PostScript code to use various graphics packages.

OTHER ACTIVITIES AND INTERESTS

- **Professional Musician.** Member of first violin section in the Maryland Symphony Orchestra, 2002–present. Previous orchestras include the Harvard-Radcliffe Orchestra, the Pioneer Valley Symphony, and the Dartmouth Symphony Orchestra. Counselor at Greenwood Music Camp, summers 1989–1994.
- **Recreational Mathematician.** With Prof. James Henle of Smith College, proved that one can tile the plane with exactly one of each square of positive integer side; submitted for publication, 2005.
- **Word Game Enthusiast.** Scrabble, Boggle, Anagrams, The Last Word, et cetera.
- **Ultimate Frisbee.** Organized and played pickup ultimate at Harvard, Smith, Dartmouth, and Mercersburg.
- **Aikido** at Harvard and in Northampton, 1990–1992.