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PROFILE

My passion for computers began at age eleven and to this day I continue to develop my knowledge of the field, both in the support and setup of systems and in developing my programming skills. My pursuit of a PhD in theoretical chemistry — a discipline dependent on cutting-edge hardware and software — further refined and expanded my repertoire to encompass the needs of modern scientific computation.

EXPERIENCE

Teaching Assistant, Dept. of Chemistry and Biochemistry, University of Delaware **1999-2000**

Responsible for multiple lab sections of 100-level chemistry classes: weekly experiments, weekly review sessions, preparation and grading of quizzes, grading of exams. Also taught two sections of a 300-level lab with much the same responsibilities.

Research Assistant, Dept. of Chemistry and Biochemistry, University of Delaware **1999-2005**

Research program toward Ph.D. in Theoretical Chemistry, including quantum chemistry, neural networks, potential function parameterization, predictive STM imaging, and molecular electronics modeling; development of programs and code libraries pursuant to these studies.

Systems Programmer, Network and Systems Services, University of Delaware **2005-Present**

Member of the team that provides system-level support of computing systems owned and operated by central IT at the University of Delaware. Includes the authoring of new software to meet distinctive needs of the University community (Dropbox, P.O. Box, campus carillon system); configuration and management of the UMS VoIP system (using Asterisk); and responding to service requests made by students, faculty, and staff.

Cluster Management and Administration, College of Engineering, University of Delaware **2005-Present**

Build, manage, and maintain several HPC Linux clusters for research groups in the College of Engineering, removing this burden from students pursuing higher degrees. Provide user support and education on usage of these clusters. Provide educational seminars that discuss a wide variety of topics in the realm of HPC.

EDUCATION

Lebanon Valley College, Annville, PA

1999 B.S. (ACS Certified), major in Chemistry, minor in Computer Science

University of Delaware, Newark, DE

2006 Ph.D. in Physical Chemistry [concentration in theoretical/computational aspects]

SKILLS

- Extensive experience with Linux, Silicon Graphics, Sun, and Macintosh hardware and operating systems: installation, configuration, system-level programming. Basic knowledge of Microsoft Windows.
- 16+ years programming experience: C, C++, Objective-C, Pascal, Fortran, Java, PERL, Matlab, Mathematica, UNIX shell scripting; OpenStep/Cocoa application development; CVS and Subversion source code management.
- Web site design/management: HTML, PHP, Apache.
- Database design/management/programming in PostgreSQL, MySQL.
- Setup and administration of Linux Beowulf-class computing clusters:
 - Intel and AMD hardware
 - Managed and unmanaged 10/100Mb, 1000Mb ethernet switches
 - Compilation/installation of parallelized software packages [LAM/MPI, MPICH].
 - Setup of user accounts and job queuing software [GridEngine]
 - Involved in the specification and bidding process of acquiring new clusters