

**Skylar Thompson** skylar@cs.earlham.edu  
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## Education

I graduated in 2006 from Earlham College with a Bachelor of Arts in Computer Science. My experience with computers consists of a significant amount of self-taught knowledge in addition to courses in theory of computation, parallel computation, networking, software engineering, and database systems.

## Computer Skills

*Computer Languages* — Have experience with application programming in C, C++ and Java, and administrative scripting in Bourne shell, Perl, and SQL. Have experience with parallel programming using MPI in C, and also in using the L<sup>A</sup>T<sub>E</sub>X computerized typesetting language.

*Hardware* — Have worked with standard Intel and Athlon hardware, and also with with a variety of proprietary hardware from Digital, Sun, and SGI. Set up hardware RAID systems, in addition to software RAID systems in GNU/Linux and FreeBSD. Have worked with Ethernet switches from Dell, Extreme, and Nortel. Have worked with Cisco 2500 and AGS+ routers. Have worked with Sun Storagetek, EMC CX3, IBM and Data Direct SANs. Have worked with Brocade and Qlogic Fibre Channel switches. Have experience with Spectra Logic and Sun Storagetek tape libraries. Have experience maintaining a 30-node Infiniband network.

*Operating Systems* — Administered GNU/Linux (Red Hat and Debian), FreeBSD, NetBSD, Microsoft Windows (3.1 through XP), IBM OS/2, and Sun Solaris, and have some experience with OpenBSD and OpenVMS.

*Servers* — Setup numerous software packages for servers: IBM Tivoli Storage Manager and GPFS, Teradactyl TiBS, Samba, Apache, NIS, NFS, Sendmail, Postfix, UW-IMAP/POP3, Squid, BIND DNS, RADIUS, Nagios networking monitoring, ISC DHCP, CUPS, and PostgreSQL.

## Additional Experience

*Human Languages* — Conversant in both written and spoken Spanish.

## Paid Experience

### System Administrator

June 2006 – present

University of Washington, Genome Sciences Department

Seattle, WA

- Respond to user requests and infrastructure emergencies in a timely manner.
- Maintain storage systems totaling over 650 terabytes of disk space and one petabyte of tape.
- Write scripts to automate tasks internally for the system administration group and externally for users.
- Maintain approximately 200 cluster nodes and support a wide variety of bioinformatics and HPC software.
- Maintain approximately 30 servers, including file, database, and web servers.
- Analyze and solve performance problems at the software and hardware levels.
- Implemented and maintain a Nagios network monitoring system.
- Write and maintain documentation for complex software and hardware systems.

**Software developer**

September 2005 – present

## Bootable Cluster CD (BCCD)

- Extended the BCCDv2 to run off a hard drive.
- Migrated the BCCD from the BBC to the Debian Linux distribution, culminating in the release of BCCDv3.
- Wrote automated build process to improve reliability of BCCD releases.
- Respond to user requests for additional software and hardware support.
- Provide support for instructors using the BCCD.

**Administrator**

January 2003 – June 2006

## Earlham College Computer Science Department

Richmond, IN

- Administered eight UNIX servers, which were a mix of FreeBSD, and Debian GNU/Linux.
- Maintained approximately 30 Red Hat Linux clients using disk imaging systems.
- Maintained three 16-node Beowulf clusters running Linux on both x86 and PPC hardware.
- Maintained building data/voice wiring, including a 600-port wiring closet.
- Provided end-user support for approximately 25 faculty and students from the Mathematics, Physics, and Computer Science departments.
- Setup Nagios network monitoring to enable rapid notification of system faults.
- Setup a request tracker ticket system to keep track of problems and user requests.
- Redesigned tape-backup scheduling script to support tape rotation and error notification.
- Trained new staff in the use of the administrative tools used on each of the supported operating systems.
- Requested quotes for new equipment and submit proposals to the department.
- Created documentation and automation for common administrative tasks.

**Researcher**

May 2005 - June 2006

## Earlham College Cluster Computing Group

Richmond, IN

- Benchmarked distributed/clustered molecular dynamics package to develop canon for further testing.
- Implemented PBS/Maui scheduler on the campus's clusters to maximize resource utilization.
- Assisted in implementation of the x86- and PPC-based Little-Fe portable concept computational clusters.

**Other Experience****Intern**

October 2002 – May 2003

## Earlham Computing Center

Richmond, IN

- Learned about basic systems administration, such as server management and utility scripts
- Worked with a supervisor on TCP/IP networking, and aided in the maintenance of Earlham's fiber-optic and copper networks.
- Test-bedded FreeBSD 5-RELEASE to determine the possibility of upgrading older FreeBSD 4 systems.
- Worked on an LDAP authentication system to replace NIS and RADIUS servers.

**References**

Available upon request.