

Craig Earley

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Experience

Computational Systems Manager - Earlham College Computer Science (Richmond, IN) - 2018-Present

- Engineer a data center consisting of over 20 Linux servers, including three high-performance computing clusters running CentOS, a Xen hypervisor for virtual machines, SQL databases, and Docker containers. Support teaching in computer science and researchers in computational chemistry, biophysics, and bioinformatics deploying software and running analysis on HPC clusters.
- Installed, configured, and now maintain Slurm instances on three clusters for batch queueing. Automate repetitive tasks using Bash and Python scripts. Improved backup and monitoring services to increase uptime and reduce friction. Deployed an Ansible instance for automated systems management. Budgeted and procured hardware upgrades to ensure technological competitiveness.
- First responder for system failures and chief architect of prevention measures – including redundancy, incident reporting, and monitoring. Implement best security practices.
- Oversaw the collection, modeling, and analysis of UAV survey data collected during survey research in Iceland. Participate in the design, implementation, and debugging of Android apps, workflows for image analysis and DNA sequence analysis, and data modeling for collection of soil samples in the field. Used Python data science tools to visualize and analyze datasets.
- Mentor 7-10 undergraduate students learning to administer Linux servers each semester. Supervise students in project groups and classes, about both technical and professional matters. Twice sat on hiring committees. Help plan the future of the department and navigate crises.
- Ensure information (including data and designs) is preserved in an accessible and searchable place in writing, not just in verbal conversation. Participated in department planning that modernized scope of courses and offerings to students.

Information Technology Consultant - Earley Tech Solutions (Eastern Montana) - June 2017-June 2018

- Implemented convenience store point-of-sale system in collaboration with technicians and supervisors
- Built and maintained wireless networks with Ubiquiti hardware for locally-owned motel at two sites
- Built websites for individuals and small businesses using WordPress, Squarespace, and Shopify

Computer Science Student Worker - Earlham College (Richmond, IN) - August 2013 – December 2016

- Designed and managed PostgreSQL databases for Icelandic field studies data
- Wrote Python code to sort image files based on Exif geocodes and to harvest electricity readings
- Revised JavaScript online map tool to visualize geocoded glacier and volcano samples

Key Skills

- Systems and Networking: Linux (CentOS, Debian), Bash, ZSH, TCP/IP network architecture, SQL database administration, DNS, DHCP, scripting for automation, Apache configuration and deployment
- High-Performance Computing: Ansible, LDAP, NFS, Slurm, Mellanox Infiniband, CUDA, monitoring
- Software Development: Git, Python, C, C++, Android (Java), some Perl
- Communication: Documentation, technical writing, blogging, photo and video production
- Leadership: Mentorship, training, onboarding, budget proposals, inventory procurement

Code: Earlham CS GitLab (work) – code.cs.earlham.edu/craig | GitHub (personal) – github.com/craigearley

Education: B.A. in Computer Science - Earlham College – Dec. 2016 | College and Departmental Honors