Chad J. Dupuis

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in linkedin.com/in/chadjdupuis   github.com/chaddupuis/

/ Summary

Over 15 years of highly visible IT roles in higher ed/research environments (MIT, UMN, U Arizona, UC Santa Cruz, +). Over 10 years running a web development/IT Consulting business and providing the full DevOps and web development cycle for a widely used social networking/community website. Well developed interpersonal skills with a tech support history and an ability to document and discuss technical concepts with a wide range of audiences. Solid team player with strong individual problem solving skills and an appetite for continual learning and growth.

/ Education

🔖 B.S., University of Arizona, Tucson: Management Information Systems

Governor's Recognition Award for project which brought large parts of the U of Arizona campus online along with requisite hw/sw installations and end-user training.

🔖 M.Ac., Massachusetts College of Pharmacy and Health Sciences, Boston: Acupuncture

Previously a licensed provider with a 7000+ patient base.

/ Currently

🔖 Linux Systems Engineer - UMN Health Sciences, Minneapolis (12/2020 – Present)

• With a small team, function as a Linux generalist automating and providing upper tier systems operations for 300+ Linux machines (physical and VSphere/virtual machines - RHEL/Ubuntu) along with small-scale HPC gpu/ml facilities in a HIPAA compliant environment. Primary tools are Chef, Ansible, Jenkins, Bash and Python. Due to PHI data, heavy utilization of reverse and forward proxies and a host of security and auditing measures.

• Research computing development, support and documentation for a variety of bioinformatics/nlp ai/ml processing pipelines. GPU cluster installation and management involving custom apptainer development, R, Julia and Python package management, slurm configuration with gpu virtualization as well as providing a host of scientific applications – 3dSlicer, XNAT, FreeSurfer, RedCap, +.

Primary Contributions: increasing our use of containerization for legacy and newly produced applications, automation to whatever degree possible, broad deployment of ssl cert automation, small scale kubernetes development (k3s and Tanzu) and helping to grow our HPC related facilities.

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/ Technologies (Well Rounded Linux Generalist with Python ML/Web and IaC Skills)

• **Programming Languages / Integrations:** Python and associated AI/ML and Web Development/Image Manipulation Libraries, Bash, PHP, Ruby, SQL, Javascript and HTML/CSS. 3rd party REST API integrations (JSON, +). **Code samples @** (gist.github.com/chaddupuis).

• **System / Server Orchestration:** Chef, Ansible, Git/Github Actions, Terraform, Jenkins, Apptainer, Docker and Kubernetes (k3s, tanzu). Vsphere/ESXi/Proxmox virtualization, nearly all versions of Mac, Windows, Linux/BSD in both client and server roles, small-scale GPU/HPC cluster configurations, slurm configurations/usage. General cloud usage with Azure and AWS. Security and environment establishment with local/hw firewalls, cs/ssl configuration/automation, +.

• **Web / Software Systems:** Django/Gunicorn, Rails/Passenger, LAMP/LEMP stacks, docker/podman/apptainer containerization, GIT and CI/CD pipelines, PHP frameworks/CMS systems.

• **Management / Business:** Experience managing direct hires, partners, vendors, remote consultants, city inspectors (construction, health, etc.) and financial management involved with running a small business.

/ Previously

• **See full history at https://yyhmsg.net/** - MIT, U of California Santa Cruz, U of San Francisco Law, U of Arizona and Michigan State U. **Most recent highlights**:

🔖 **Owner, Developer & Practitioner - Yin Yang House, Chattanooga (2006-2020):**
• All programming, writing, design and systems administration related to the Yin Yang House network of sites (~400k views/mo). Custom built EMR system (python) with accounting, theory and inventory API integrations. Social media and SEO management. Consulting and development for other health related businesses including large projects involving in-house and off-shore developers.
• Manage all aspects of employee hiring, training, and development including facilities management, architecting renovations, city planning and code adherence. Primary practitioner providing over 2000 treatments/year, voted locally "Best of the best" in acupuncture multiple years in a row.

🔖 **Consultant III – Massachusetts Institute of Technology, Cambridge (2001-2006 and 1996-1997):**
• Provided a range of high visibility technical projects from planning with stakeholders through to completion, documentation and support. Examples include the development of a 3d visualization computing facility and a NSF funded teaching with technology program both utilizing customized applications, Windows domain management and automated deployments, as well as a small-scale commodity HPC cluster project.
• Involved with automation, development and physical management of over 300 Windows, Mac, Linux and Solaris machines in public computing clusters and academic departments.
• Direct faculty/researcher support and documentation roles for my projects, research/analysis tools, and upper tier support for the heavily Unix based MIT Athena environment.