



## Mark Montague DevOps Manager

### Unique Value Proposition

I enable employers to design and deliver high-value Cloud-Native services at reasonable cost by combining my broad technical and managerial expertise with my deep understanding of customer and business needs.

### Experience

#### University of Michigan

1995 – present

Manager	Web Hosting Team	Information and Technology Services	2018 – present
	<ul style="list-style-type: none"> <li>Provide web hosting services (2,200+ enterprise websites and apps, 23,000+ personal websites).</li> <li>Modernize legacy services, reduce technical debt, and retire/replace obsolete services.</li> <li>Manage 6 - 7 FTE, 17 services, 124 VMs</li> </ul>	<ul style="list-style-type: none"> <li>Provide end user support for Kubernetes/OpenShift.</li> <li>Migrate VM-based services to containers.</li> <li>Operate, support, and modernize the university's SSL certificate service (4,400+ certificates).</li> <li>Managed Information Services team 2018-2019 (+4 FTE)</li> </ul>	
Manager	IT Advocacy and Research Support	College of Literature, Science, and the Arts	2018
HPC Consultant	IT Advocacy and Research Support	College of Literature, Science, and the Arts	2011 – 2018
Manager	Enterprise Email and Collaboration	Information and Technology Services	2010
Manager	Web Hosting and Database Team	Information and Technology Services	2006 – 2010
Manager	Mac / Unix Infrastructure Team	College of Literature, Science, and the Arts	1998 – 2006
Manager	ITCS Contract Services	Information Technology Central Services	1996 – 1998
System Admin	ITD Contract Services	Information Technology Division	1995 – 1996
<b>Co-Founder</b>	IT contracting and consulting	The Xenosync Corporation	1993 – 1995
<b>Backup Operator</b>	College of Engineering	University of Michigan	1992 – 1993

# Education

University of Michigan

Computer Engineering, Electrical Engineering

1988 – 1991

## Professional Training

- Linux Foundation Kubernetes Fundamentals (LFS258)
- 2020, 2021 Kubecon + CloudNativeCon North America
- Red Hat SELinux Policy Administration (RHS429)
- 2019 Ross Positive Business Conference
- Foundations of Supervision
- Team Leader Training
- ITIL v3 Foundations (including exam)

## Skills

### Programming:

Python, NodeJS, PHP, Java, Go, Perl, C, Bash

### DevOps:

Terraform, CI/CD, GitOps, GitHub, GitLab, Bitbucket

**Web technologies:** Content Distribution Networks (Amazon Cloudfront), TLS/SSL, OpenID Connect / OAuth 2, JWT, JavaScript (ES6), HTML, CSS, JSON, YAML, XML

### Web Content Management Systems:

WordPress, Drupal, Mediawiki

**Security:** X.509 certificates (including creating and managing private Certification Authorities), SELinux, iptables / Netfilter, BPF, Kerberos, LDAP, OWASP, Compliance (HIPAA, FISMA, FERPA, PCI DSS, CUI, NIST SP 800-53)

### Cloud Platforms:

AWS, GCP, Linode  
**Containers:** Docker/Podman, Kubernetes, kubeadmin, Red Hat OpenShift, Google Kubernetes Engine, Rook+Ceph, Helm, cert-manager, Velero, Knative, Custom Operators (Operator SDK, Kopf)

**Web servers:** Apache HTTP Server, PHP-FPM, Apache Tomcat, F5 Load Balancer (LTM / BigIP), ExpressJS, Electron

**Databases:** MariaDB/MySQL, Postgres, MongoDB, Redis

**Business:** Hiring / Recruiting, Performance management, Mentoring, Conflict resolution, Team building, Managing organizational change, Budgeting, Report writing, Proposal writing, Strategic planning, Knowledge management, Continuity / disaster recovery planning, Customer Relationship Management, Continuous improvement

## Selected Projects

**SSL certificate root CA certificate transition:** Led a multi-team project to successfully move the entire university to a new certificate chain to avoid disruption to IT services when the old root and intermediate certificates expired. Wrote custom scanning and notification software to ensure all at-risk certificates were identified and replaced.

**Remediation of legacy web infrastructure:** decommission two old operating systems (third in progress), increased service resilience and eliminated most outages, performed capacity planning and disaster recovery planning.

**Lead architect / designer for containerized web app hosting solution:** ► Created special-purpose backup-and-cloning solution ► Investigated and solved major filesystem performance problem ► Explored self-service UX for web app hosting including writing React web app and OpenShift console plugin proofs of concept.

**Modernize certificate management for the university (in progress):** automation through ACME with the university's commercial certificate provider, reduce staffing costs, eliminate service outages due to expired certificates.

**Created a custom version of Cyberduck SFTP client for macOS:** Customized Cyberduck Java code to reconfigure it for university systems, eliminated end-user pain points to reduce support costs, packaging and distribution.

**In-depth understanding of Kubernetes:** As a learning exercise, created my own managed Kubernetes solution using Terraform to automatically deploy, manage, and destroy kubeadmin Kubernetes clusters in Google Compute Engine including deploying and configuring the CSI driver for GCE persistent disk volumes.