

QUINN MCCAFFREY

Senior Software Engineer - Large team technical lead

♀ She/They

📍 Austin, TX

@ quinn@versaliminal.org

📞 512-656-6237

🌐 versaliminal



EXPERIENCE

VMware / Broadcom

Master Engineer 📅 2016 - 2025 📍 Austin, TX

Architect of backup and restore, auto-remediation, and observability infrastructure for the VMware Cloud Foundation appliance platform

- Lead Enterprise Readiness for new VCF appliance platform enabling two critical components to on-board to common infrastructure with improved resiliency, maintainability, and lower operational burden.
- Lead development of a backup and restore feature for hosted components allowing quick near-time restore from continuous backups as well as full disaster recover restoration to and from external infrastructure.
- Lead integration of observability infrastructure with a common Kubernetes based appliance platform to provide logs, metrics, and other data to downstream VCF components via common interfaces.

Architect (Staff 2) for monitoring, observability, and incident management infrastructure for VMware Cloud products and technical lead for ~18 engineers

- Lead development of a data pipeline solution delivering high volume, low latency time series points, events, and other data to a variety of downstream services, platforms, and datastores while reducing overall cost and improving reliability
- Lead development of an Ops as Code solution managing alerts, runbooks, dashboards, and other resources for dozens of teams with deployment to a multitude of platforms and environments
- Lead development of an incident management pipeline providing unified, enrichment, suppression correlation, auto-remediation, and dynamic escalation, reducing operator intervention by 80%
- Lead development of custom data collection tools allowing developers to easily collect data from a broad spectrum of VMware products and designed consumption driven orchestration of collection with observability in mind

Senior member of technical staff building "Fleet Management" infrastructure for VMware Cloud on AWS

- Lead design and development of the monitoring system for VMware Cloud on AWS, helping to reduce operational toil and meet SLA requirements for hundreds of customer environments.
- Lead initial design and implementation of the Release Coordination Engine for VMware cloud on AWS, facilitating automated patch and upgrades for hundreds of customer environments.

Engineer working on provisioning operations in vSphere

- Added support for provisioning next-gen NVRAM (NVDIMM) in vCenter, allowing it's use in both NVDIMM aware and legacy virtualized workloads.

ABOUT

I am a lead technical engineer who has recently developed resilient enterprise platforms, cloud scale monitoring and observability infrastructure, world-class incident management systems, and essential ops-as-code platforms. In the past I have worked in service modeling via custom LLVM integrations, network virtualization, high performance network stacks, and reverse engineering.

In my spare time I enjoy biking, reading, table-top gaming, cooking, and much more.

SKILLS



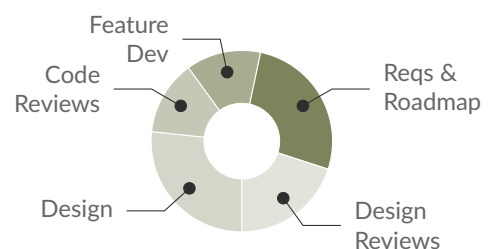
EDUCATION

B.S. in Computer Science *Cum Laude*

🏛️ **Park University**

📅 2007 - 2010

RESPONSIBILITIES



Juniper Networks

Software Engineer 📅 2014 – 2015 📍 Austin, TX

- Developed LLVM module to extract full control and data flow graphs from existing codebases and export them to a graph database, enabling offline analysis of program model
- Developed tools for analyzing program models to find architectural issues and perform automated root fault analysis from field core dumps
- Developed LLVM module to perform automated telemetry injection during program compilation, enabling targeted, efficient data collection to be inserted into release binaries without developer intervention
- Led effort to containerize existing services with Docker and deploy them with Mesosphere on AWS and OpenStack with goal of greatly simplifying development and deployment processes.
- Developed suite of malware collection tools to facilitate development and testing of malware analysis service.

General Dynamics

Principle Engineer 📅 2010 – 2014 📍 San Antonio, TX

- Architected and led development of a custom network processor with full passive OSI and IP stacks including support for over 30 protocols from layer 2 to 7
- Reverse engineered and implemented passive processing for numerous proprietary protocols
- Developed OpenGL based data visualization tools to facilitate reverse engineering of low level (bit-oriented, synchronous hierarchy, etc.) protocols and data structures
- Architected and led development of network situational awareness interface to provide real time network status as well as historical analysis of over 1 billion data-points
- Created tool to facilitate extracting forensic data from surface mount serial flash and EEPROM chips without desoldering

U.S. Air Force

3C051 📅 2006 – 2010 📍 San Antonio, TX

- Developed, validated, and documented dozens of tactics for network attack and defense for USAF publication
- Reverse engineered and analyzed numerous malware payloads and developed new tools for automated triage and analysis

OTHER PROJECTS

- ☼ **Demiurge** – A explorative project exploring application development and deployment technologies
- ☼ **Contested** – A site which provides assistance in finding and challenging uncontested elections
- ☼ **28z** – A custom VM loosely inspired by RPL (Reverse Polish Lisp) systems like the HP-28S
- ☼ **TTRPG-Tools** - A publishing system for game content, recipe book, and similar media.

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