

As a deeply technical software engineer, I offer experience as an individual contributor, technical team lead, project manager, and people manager. I excel at figuring out technical pain points within an organization and creatively solving them. I bring system-level thinking to solve the strategic engineering problems.

Professional Experience

Kence Technology Solutions

2026-present

Principal Software Engineer, Owner

- Evaluate pain points for non-profit customers and how to best address them technically and cost-efficiently.

Client: Project Gutenberg

current client

- Introduced observability to systems servicing end-users, including adding instrumentation to custom applications, to diagnose latency problems.
- Reworked mirror metadata format to be 1/10th the size of the original, consume 1/2 the resources to generate, and is more readily machine parsable.
- Migrating backend systems to be managed as infra-as-code and applying security best practices.

VAST Data

2024-2026

Principal Software Engineer

- Interfaced between the technical sales teams and the engineering organization to support customer POCs, evaluate and pass on new feature requests, and triage performance issues.
- Trained the technical sales team on new product features and how they address customer pain points.
- Engaged with sales teams and customers to understand their VAST Database use cases. Created POCs demonstrating VAST Database performance of their workflows.
- Built reusable, flexible tools to quickly load data into the VAST Database for exploratory testing during feature development, performance testing, and customer POCs. Tooling also supports reading data via Trino and python SDK for similar performance testing and POCs.
- Validated VAST Database performance features, including new features like sorted tables and partitioning, with Trino, Spark, and the python SDK during feature development. Updated internal engineering infrastructure to support new database features and performance test infrastructure to exercise them.

Invitae

2021-2023

Principal Software Engineer & Technical Team Lead

- Drove best practices for software architecture and team processes to improve scalability and performance across the Invitae engineering organization.
- Helped engineering teams realize \$2M/year cost savings in AWS by optimizing workloads, right-sizing deployments, and decommissioning deprecated systems.
- Enabled access for international developers to production infrastructure by aligning business and security controls across internal legal, security, and cloud teams. This delivered a follow-the-sun support model for the San Francisco lab and created a blueprint used by other teams.
- Led initiative to re-platform the Lab Information Management System (LIMS) from Rancher to the internal cloud platform in 3 months. Previously, this effort was stalled for 9 months.
- Resolved repeat LIMS system outages by improving the stability of LIMS's key datastore.
- Reduced LIMS load by 30% by identifying inefficient usage patterns and engaging consumers to fix them.
- Designed, led, and delivered the first 3 of 4 milestones to improve the pipeline infrastructure disaster recovery plan, enabling future work to burst bioinformatic pipeline workloads from the datacenter into the cloud.

ExtraHop Networks

2018-2021

Sr. Principal Software Engineer & Technical Team Lead

- Provided technical leadership and direction for the 25-person engineering organization responsible for performance and tools, validation, automation, and DevOps.
- Identified, managed, and delivered major transformation initiatives such as updating tooling to python3, establishing coding standards and best practices, introducing proper python packaging, and running automated tests with CI.
- Led and technically managed cross-functional performance and tools team responsible for performance across the ExtraHop portfolio. This involved writing and reviewing code, tool design, managing team sprints, running scrums, and setting team direction and deliverables.
- Integrated the performance and tools team into the company-wide quarterly product development and release process rather than a post-release validation team.
- Co-architected ExtraHop's first SaaS product and led a small tiger team of software engineers to design, create, and deliver a solution from proof of concept to market in 4 months.

BlackSky / Spaceflight Industries

2016-2018

Software Development Manager

- Delivered Gemini, a ground control system for commercial Earth-imaging satellites, from requirements through implementation. This work included driving architectural discussions, ensuring functional requirements and scalability as more satellites were launched, implementing a low-latency telemetry pipeline, and creating monitoring and alerting systems to identify and escalate issues to operators on Earth.
- Managed team of 6 software engineers and triaged work to ensure company milestones were achieved and communicated to stakeholders.
- Coordinated closely with the operations team to ensure the system satisfied their use cases.
- Led software validation team to validate the software running the satellites, the software and hardware systems that command the satellites from the ground, and everything in between. Coordinated with the spacecraft hardware validation (AI&T) team to provide software necessary for hardware validation and check-out.

EMC Isilon Storage Division

2010-2016

Consulting Performance Engineer

- Led four teams to reinvent building Isilon products according to a DevOps model.
- Led validation team upgrading the OneFS base OS from FreeBSD 7 to FreeBSD 10. Created tooling to test the development code on virtual and real hardware in anticipation of the new system.
- Created a performance build verification suite to detect regressions on branches during development.
- Led performance testing and characterization of OneFS 7.0 cornerstone features.

IBM Corporation

2000-2010

Performance Lead for Tivoli Identity Manager

- Increased Tivoli Identity Manager performance 18x in key product areas and scaled resident user population from 10k users to 5m users.
- Resolved critical customer situations remotely and on site. Assisted support teams when customers encountered performance- or scalability-related problems.
- Advised development teams on best practices for performance and scale.
- Collaborated with product architects to ensure new features met customer performance and scale goals.
- Wrote and maintained documentation, including official product tuning guides. Created tools to troubleshoot performance problems.

Skills

- **Leadership:** successfully led small- and mid-sized cross-organizational teams to achieve common goals while reporting to stakeholders
- **Languages:** proficient in python, PHP, and bash
- **Platforms:** Linux and macOS
- **DevOps tooling:** docker, kubernetes, terraform, AWS/GovCloud, VMware ESX/vSphere, Elasticsearch/Kibana, logstash
- **Observability:** Prometheus, Grafana, New Relic
- **Database design and management:** MySQL, PostgreSQL, and DB2
- **Linux server administration:** web (Apache, nginx), DNS (bind9), mail (postfix, dovecot, SPF/DKIM/DMARC, SpamAssassin mailman/mailman3), file sharing protocols (NFS/Samba)
- **Daily tools:** Mac and Linux desktops, python, git, bash/ksh, standard unix toolchain

Volunteer Experience

Distributed Proofreaders

2006-present

Distributed Proofreaders (pgdp.net) is the largest contributors of public domain eBooks to Project Gutenberg.

Lead Developer & System Administrator

- Transitioned 20-year-old codebase, processes, and in-flight books [from Latin-1 to Unicode](#) with zero dataloss or downtime. I planned the work, coded it, led the test effort, and did the roll-out.
- Developed WordCheck, a proofreading-specific tool that detects scannos and other OCR errors.
- Migrated project from CVS to git. Created git workflow documentation and trained developers to use it.

Mentors in Tech

2021-present

Mentor

- Mentored junior and senior college students. Met with 2-4 students per school year, each 1 hour a month.
- Discussed various tech industry-related topics like how tech hires and an overview of different career paths within tech. Reviewed their resume and gave mock interviews.

Ada Developers Academy, final interviewer for cohort 19

2022

Education

Texas A&M University, BS Computer Science, May 2000