

PATRICK LAWRENCE

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OBJECTIVE

A position that is interesting and can benefit from my leadership and technical depth; provides a fun and challenging work environment; an opportunity for learning new skills, career growth and the opportunity to bring out the best in others and in myself.

SUMMARY OF QUALIFICATIONS

Proven ability to lead teams and develop skills of others in large, successful organizations. Possesses a deep understanding of the operation of large scale distributed systems. Is a senior level engineer with 25+ years of commercial programming experience, 20+ years of UNIX experience, a broad base of experience with multiple technology stacks which allows me to quickly understand and adapt to new technologies.

- Successful track record of leadership and bringing out the best in those I work with
- Professional work ethic, self-motivated, responsible, flexible, loyal, team-oriented
- Proven ability to meet deadlines in high stakes environments
- Consistently exceeds expectations which results in high customer satisfaction
- Ships software – gets things done
- US Government Security Clearance (TS/SCI with polygraph – not current)

WORK EXPERIENCE

Meta (Facebook), Bellevue, WA

2019 to present

Production Engineer

Developed and scaled services for 100+ exabyte high-performance storage systems that were foundational for both data warehouse workloads and customer facing storage systems. Drove efforts to increase reliability for most workloads to 11 9s of durability and reduced repair rates from days to minutes across the main storage system for non-archival data.

Developed and lead a cross-team/cross-org reliability program that established customer SLAs and SLOs for the divergent workloads on storage systems. This program also drove continuous improvements in the SLA/SLO provided to customers and drove efficiency in reporting and operations of the services.

Led an effort to start a new production engineering engineering team that was focused on security enablement and improvements across all infrastructure blob-like and archival storage systems at Meta. Responsible for driving all storage teams to implement company-wide investments that reduced engineer access to any customer data and ensure that services are still able to be operated efficiently.

Leading an effort to quickly, correctly and efficiently on-board storage capacity so that Meta's existential challenge of growing ML training capacity is met.

Amazon Web Services, Seattle, WA

2015 to 2019

Senior System Development Engineer

Designed and lead a cross-team/cross-org program that resulted in substantial reliability improvements in the EC2 server fleet. Reliability improvements came from changes in hardware, software and networking. The changes required deep dives in all areas and close involvement with SMEs if they existed. Responsible for VP-level communication of engineering efforts. The results of the program lead to substantial improvement of customer experience running workloads on EC2.

Initial engineer working with a senior principal engineer on a proof of concept for what would become the AWS Outposts service. The project required changes throughout multiple EC2 services and networking in order to securely deploy EC2 capacity in customer facilities.

Responsible for VP-level communication on project milestones and engineering updates. Worked closely with the pilot customer to successfully deploy the proof of concept on schedule. Currently a lead engineer working on implementing the production service that will allow for running AWS workloads on-premises.

Twitter, Seattle, WA 2013 to 2015
Senior SRE / Tech Lead

Tech lead in the SRE organization responsible for mentoring, career growth and prioritizing the work of all SREs on the core applications (Twitter's high-throughput back-end services) teams. Responsible for leading and coordinating the development of a Python framework and applications to facilitate efficient management of Twitter services across multiple engineering organizations. Led the effort to migrate services and infrastructure responsible for growth initiatives from Twitter's legacy data center to a new data center facility without downtime. Managed the migration and compliance efforts around on-boarding external companies joining Twitter via mergers and acquisitions as well as hardening Twitter's internal compliance efforts pre-IPO.

Amazon Digital Services, Seattle, WA 2012 to 2013
Senior Systems Engineer / Tech Lead

Part of a team working in secret to bring an innovative, new product to market. The project eventually became the Echo. Responsible for mentoring junior engineers and coordinating their work efforts. Built a large-scale monitoring configuration framework now widely used throughout Amazon. Worked cross-team to re-design the build tooling supporting teams that need to keep their source code and build artifacts secret.

Amazon Web Services, Seattle, WA 2010 to 2012
Senior Systems Engineer

Responsible for developing automation and tools used to effectively operate and manage the S3 service. Responsible for coordinating with development and management teams on all aspects of the S3 service including new features, operational readiness and operational support. Specific accomplishments include managing a more than quadrupling in size of the S3 service (fleet, number of objects, amount of data); drove the development and execution moving off of the legacy storage sub-system; successfully launched four new regions and developed the automation and documentation to decrease the time to launch from over a month to a week; developed an in-house Python framework for fleet management used across Amazon and system specific extensions for all of Amazon Web Services (AWS) storage services; participated in the launch of a new AWS storage service as the operations tech lead.

NTT/Verio Migration Team, Roseville, CA 2000 to 2010
Senior Systems Engineer

Senior engineer for coordinating and leading the development of systems, frameworks and methodologies that implement the real-time and seamless migration of large customer bases from disparate web hosting platforms (primarily those of external web hosting companies). Specific accomplishments include leading the successful migration of over 400,000 web hosting customers to Verio web hosting platforms (UNIX and Windows); leading and coordinating development of highly optimized tools and methods to manipulate large volumes of customer data; leading and coordinating development and support of a mission critical application in Python that orchestrates, manages and supports all aspects of customer migrations; provide engineering solutions, documentation and support to sales teams facilitating the acquisition of new clients; development of tools to effectively consolidate customers on new servers and platforms generating considerable cost savings in operations, hardware and data center space.

EDUCATION

B.S. Computer Science, University of California at Davis 1992

SKILLS

Programming: Go, Python, Rust, Lua, Perl, Ruby, C++, C, Java, x86 assembly

Programming Toolkits: AWS SDK, Folly

Platforms: Administration and use of UNIX (all variants), Windows, Mac OS X

Server Applications: KVM, Xen, Docker, Redis, Hadoop, Kerberos, MySQL, PostgreSQL

Creative Applications: Gimp, Photoshop, Illustrator, inDesign