Sef Kloninger

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Highlights

Hands-on engineering manager who loves developing software and systems for the Internet. My expertise is building, scaling, and operating distributed systems. My roots are in backend/ops but I've dabbled in full stack. I've led teams of 100+ engineers at Akamai and VMware, and small teams at Google, Ning, and Stanford. I built and launched an open-source online learning platform in eleven weeks. Had a blog post hit the Hacker News top spot. BS Computer Science, Stanford.

Work Experience

Google
Sunnyvale and San Bruno, CA

Tech Lead Manager (9/2015-present)

Built scalable authorization systems for **Google Cloud**. Manager and on-call for mission-critical production system (5 min response time). Oversaw the Common Expression Language (CEL) used by dozens of projects acrosss Google and open-source. Launched efficient triggering systems for event-driven Serverless Computing.

Scaled up the **YouTube Data Warehouse**. Managed the core engineering team that owned scheduling and monitoring ETL pipelines. Owned tools and technology used to analyze the telemetry from over a billion active users. Primary decision maker on warehouse operations, resource management, capacity planning, and security, working with SRE and Resource Managers.

Wavefront
Palo Alto, CA

VP Engineering (9/2014-3/2015)

Led six engineers building pre-launch service for monitoring infrastructure at scale. Developed backend features in Java and frontend features in JavaScript (Bootstrap, FlightJS, Require). Operated sizable Amazon Web Services deployment with Chef: cleaned up security groups and IAM roles. Cut COGS by 50%. Went on to be acquired by VMware.

Stanford Online
Palo Alto, CA

Head of Engineering, Open Source Platform (6/2012-8/2014)

Engineering manager and developer on Open edX, Stanford's open-source platform for Massive Open On-Line Courses (MOOC's). Senior technical member of the Stanford's new Online Education effort, developing strategy and presenting to senior leaders and trustees. Reported to the Vice Provost for Online Learning. Over Summer 2012 built and launched Class2Go, the first open-source MOOC platform. Ran successfully for 200k students until merged with edX in April 2013.

- **Engineering Manager**: Line managed small engineering team. Ran agile process with weekly sprints and demos; established code review and releases. Hired three engineers and many students. Set up GitHub, GitHub Issues, Huboard and Google Docs. Established *just enough* process.
- **Dev/Ops and Release**: architect of the run-time system built on AWS (EC2, S3, RDS, SES), ansible/chef, and celery/SQS. Lived and breathed Git. Coordinated all releases. Managed capacity, fixed production issues.
- **Core Engineer**: core app features: queueing, oAuth integration, and operations tools.

Ning
Palo Alto, CA

VP Infrastructure Engineering and Operations (12/2010-4/2012)

Operations. Oversaw the team running a medium-sized platform: 100K sites, 300M requests/day, 60M uniques/month, 240TB of user-generated content. Maintained four nines of availability. Established set of core technical metrics: incidents, availability, and performance. Built a mini-NOC. Defeneded againt DDoS attacks by choosing protection service provider after build vs. buy analysis.

Infrastructure. Line managed senior engineers on the core Ning platform: relational and key/value content, blob storage, messaging, service discovery, mail, activity, and API's. ~50 RESTful Java services. Ran project to convert Oracle to sharded MySQL. Improved performance by restructuring JS and CSS and targeted rewrites. Responsible for development and support of the Ning API.

Left shortly after Glam Media acquisition (12/2011).

VMware
Palo Alto, CA

Senior Director, Desktop Virtualization Engineering (5/2008-12/2010)

Delivered server and client virtualization enterprise software to improve how corporate Windows desktops are deployed and managed. Hired to line-manage a small engineering team, grew to leading engineering for the Desktop Business Unit with 140 engineers in the US, UK, India, and China. Managed managers, directors, and three principal engineers (VMware's most senior technical role).

Delivered major releases that grew Desktop from $10M to $100M. Owned engineering for enterprise products, VMware View remote virtual desktops and ThinApp Windows appplication virtualization; personal virtualization with Workstation (Windows and Linux) and Fusion (Mac). Technical sponsor of two strategic transactions: acquisition of RTO Software for profile virtualization and OEM of Teradici's PCoIP remote display protocol.

Akamai Technologies
San Mateo, CA (2007-08)

Senior Director, Service Performance (2005-08) Cambridge, MA (1999-07)

Founded the Service Performance group in Networks & Operations for advanced ops and high-touch customer engagements. Grew organization from six to 35 engineers and architects in US and India.

Improve service reliability by driving bulletproofing and scaling initiatives. Managed Akamai's incident response process. Define and measure core platform quality metrics, presented quarterly to CEO and Chief Scientist. Owned high-touch customer escalations and events, including: 2006 Olympics, March Madness, Microsoft patch Tuesdays, Hulu's launch, and Apple iPhone launch. Designed a unique cache hierarchy setup for long-tail social networking content.

Director and Senior Director, Engineering (1999-05)

Engineering Manager of 20-50 engineers and managers. Led technical hiring during company growth, then managed transitions and motivated teams during staff reductions. Mentor to other managers, senior engineers, and architects. Established processes for development, QA, and release engineering. Oversaw technical integration of two acquired companies.

Hands-on technical leader of Akamai's core technology. Handled many urgent service incidents; one of five crisis managers called in for the big problems.

- Communication infra.
- Load balancing
- Linux kernel
- Security systems
- Coherence protocols
- Operations tools
- HTTP and DNS
- Fault tolerance
- Performance

Senior Software Engineer (1999)

Lead engineer on HTTP content server. Scaled technology and features for rapid pre-IPO growth.

FarSight Financial Services
Cambridge, MA (1998-99)

Senior Performance Engineer

Enhanced performance of a website for retail on-line stock trading. Profiled systems, rewrote critical code paths (C++), and optimized database queries and schemas (Sybase).

Venturcom Cambridge, MA (1996-98)

Principal Software Engineer

Principal architect, engineer, and team lead of Component Integrator, a tool for customizing and embedding Windows NT and CE. Product bought by Microsoft, later released as the Windows Embedded Studio. Venturcom eventually became Ardence, acquired by Citrix.

McKinsey & Company, IT Cambridge, MA (1993-96)

Principal Software Engineer

Led development of client/server human resource system for internal use. Enhanced and optimized custom database replication system (Oracle). Attended week-long training sessions on communication skills, writing, and problem solving.

Veritas Software Santa Clara, CA (1990-93)

Software Engineer (Part-Time)

Developed and tested Visual Administrator tool suite (C, Motif, Xt).

Activites

- 2014-2018: Secretary of the Peninsula School Board of Directors and Executive Committee member.
- 2016-current: Member of the Bridge Foundry Advisory Board.

Patents

- Content Delivery Network (CDN) Content Server Request Mechanism With Metadata Framework Support (US 7,240,100 and US 8,122,102)
- Internet content delivery service with third party cache interface support (US 7,010,578)
- Method and System For Providing Content Providers With Information About How Their Users Access the Internet (WO 2002/017139)
- Enterprise Content Delivery Network Having a Central Controller For Coordinating a Set Of Content Servers (pending, US 2004/0073596)

Education

Stanford University, B.S. Computer Science, 1993
Research: "Verification of SCI Cache Coherence Protocol" under Prof. David Dill.

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