Sef Kloninger

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Highlights

I am a hands-on full-stack engineering/operations leader who loves the Internet. My roots are in backend/ops but lately I've been more interested in frontend and open-source. I know enough about running and scaling systems and content stores to be happy to let Amazon do it. For fun I code in Python or JavaScript. I've led teams of 100+ engineers at Akamai and VMware, and small teams at Ning, Stanford, and Wavefront. I built and launched an open-source MOOC platform in eleven weeks. Once I had a blog post hit the Hacker News top spot. BS Computer Science, Stanford 1993.

Work Experience

Wavefront
VP Engineering
Palo Alto, CA
(9/2014-3/2014)

Lead 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%.

Stanford Online
Head of Engineering, Open Source Platform
Palo Alto, CA
(6/2012-8/2014)

Engineering manager and core developer on Open edX, Stanford's open-source platform for Massive Open On-Line Courses (MOOC's). Negotiated merger with edX; worked with them to open-source their code and move to an open development process. As the strongest technical voice in Stanford Online Education, defined our multi-platform strategy with 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 200,000 students until edX merger (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
VP Infrastructure Engineering and Operations
Palo Alto, CA
(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 DDoS attacks by running build vs. buy analysis, then negotiating contract with service provider.

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 the acquisition by Glam Media in December 2011.

VMware
Senior Director, Desktop Virtualization Engineering
Palo Alto, CA
(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
Senior Director, Service Performance (2005-08)
San Mateo, CA (2007-08)
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

- Member of edX Technical Advisory Board.
- Member of the Peninsula School Board of Directors. Secretary of the board and Executive Committee member.

Patents

- Content Delivery Network (CDN) Content Server Request Mechanism With Metadata Framework Support (US 7,240,100)
- 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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