# Sef Kloninger

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**Highlights**

**I am a hands-on engineering/operations leader** who builds meaningful and interesting Internet software. I have experience with distributed systems of thousands of servers, or a single site. I'm working on being a full-stack engineer by writing code nearly every day. I've led core engineering and ops groups at Akamai, VMware, Ning, and now Stanford. Although I've managed 140 engineers across three locations, I prefer small teams. Last summer I lead a team that built and launched an open-source MOOC platform in eleven weeks. One of my blog posts hit the top spot of Hacker News. BS Computer Science, Stanford 1993.

**Work Experience**

### Stanford Online Education
### Engineering Director

Palo Alto, CA

(6/2012-present)

Hands on manager of team that built Class2Go, the first open-source platform for Massive Open On-Line Courses (MOOC's). Started and lead project. Coding began in July and we lauched in September with tens of thousands of students. Merged project with edX in April.

- **Dev/Ops and Release**: architect of the run-time system built on AWS (EC2, S3, RDS, SES), chef, and celery/SQS. Coordinated and did all releases. Established and managed open-source community.
- **Architect**: designed simple and robust cloud system by avoiding SPOF's.
- **Engineering Manager**: ran agile process with weekly sprints and demos; established code review and releases. Hired two engineers. Set up GitHub, GitHub Issues, Huboard, and Google Docs. Established *just enough* process.
- **Engineer**: core app features in Python/Django, oAuth third-party integration, a prototype iOS app using PhoneGap.

### Ning (acquired by Glam Media, Dec 2011)
### 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.

### VMware, Desktop Virtualization
### Senior Director, Desktop Engineering

Palo Alto, CA

(5/2008-12/2010)

Built products using server and client virtualization to disrupt how corporate Windows desktops are deployed and managed. Grew from managing one group to leading engineering for the Desktop Business Unit: 140 engineers in the US, UK, India, 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 development for enterprise desktop: VMware View for remote virtual desktops, and ThinApp for Windows appplication virtualization. Also two personal desktop packaged products: Workstation on Windows and Linux, and Fusion on 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-

San Mateo, CA (2007-08)

### 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.

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### 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).

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### 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.

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### 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.

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### Veritas Software        Santa Clara, CA (1990-93)
### Software Engineer (Part-Time)

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

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**Patents**

- Content Delivery Network (CDN) Content Server Request Mechanism With Metadata Framework Support (7,240,100)
- Internet content delivery service with third party cache interface support (7,010,578)
- Enterprise Content Delivery Network Having a Central Controller For Coordinating a Set Of Content Servers (10/437,588)
- System and Apparatus For, and Method Of, Controlling Bandwidth On a Network Link Within an Enterprise Content Delivery Network (pending)

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**Education**    **Stanford University, B.S. Computer Science, 1993**

Research: "Verification of SCI Cache Coherence Protocol" under Prof. David Dill.