

Seth J. Morabito

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PROFILE

Accomplished, passionate, driven and creative programmer with over a decade of experience solving problems at every level of the software engineering lifecycle, from requirements analysis to deployment. Strong team player with a love of the craft and a constant desire to explore, create, and solve. Comfortable on both small and large systems. Core skills center around backend software for Internet applications, object oriented design, test driven development, tool development, and API design. Never happy standing still.

CORE SKILLS

Primary Languages: Java, C, C++, Ruby.

Secondary Languages: Python, Rust, Go, JavaScript.

Technologies: Linux, Apache Kafka, Docker, InfluxDB, HPE Vertica, MySQL, PostgreSQL.

Other: Embedded Development (Atmel AVR, ARM).

WORK EXPERIENCE

Akamai Technologies

Senior Software Engineer II

November 2017 – Present

I became an Akamai employee following Nominum's acquisition by Akamai Technologies. I continue to work on Nominum technologies that were part of the acquisition.

Nominum, Inc.

Senior Staff Engineer

September 2013 – November 2017

Built several core technologies used at Nominum to provide our N2 solutions, including ThreatAvert, Engage, and Reach.

- Designed and built a RADIUS, DHCP and DIAMETER IP Address change tracking solution capable of handling over 10,000 IP address changes per second in a production environment.
- Lead engineer on an internal high performance reporting engine back end capable of processing 1.5 million transactions per second at scale.
- Implemented several new features on Nominum's high-performance HTTP Proxy software, deployed to millions of end users world-wide.
- Worked closely with geographically diverse customers to build robust solutions to their problems.

Glyde Corporation

Senior Software Engineer

December 2007 – July 2013

As an early employee, helped build a popular and growing Consumer-to-Consumer online marketplace with Ruby on Rails, MySQL, Apache, Varnish, RabbitMQ, and Heroku.

- Designed and built a fraud detection and prevention system that reduced fraudulent activity by 80% and significantly increased customer satisfaction.
- Architected and wrote tools to perform competitive pricing analysis to ensure healthy market prices.
- Spearheaded integrated of the Glyde Marketplace with PayPal (payment and withdrawal), and Twilio (SMS messaging).

- Implemented a cohort analysis system to analyze buying and selling patterns to improve business strategy decision making.
- Developed a system to publish daily Glyde inventory to comparison shopping sites, increasing customer awareness and traffic.
- Improved developer productivity by implementing simulated external services for use during development and testing.
- Developed frameworks for unified package tracking and delivery notification via several shipping companies.

Stanford University

Software Engineer

May 2004 – December 2007

Software Engineer with the LOCKSS Program at Stanford University. LOCKSS ("Lots Of Copies Keep Stuff Safe") is an Open Source, distributed, peer-to-peer digital content preservation system used by libraries world-wide to preserve digital journals.

- Architected and implemented major portions of the new LOCKSS peer-to-peer polling protocol (LCAP V3), resulting in a ten-fold improvement in content auditing and repair efficiency over the previous implementation.
- Created a complete testing environment in Python for stress and integration testing of the LOCKSS Network.
- Designed and built a dynamic Java plugin extension system for automatically finding and updating running LOCKSS systems with new functionality.
- Drove the creation of internal project management tools using Ruby on Rails, streamlining the ability to publish new content to the LOCKSS network.

PERSONAL PROJECTS

AT&T 3B2/400 Emulator

<https://loomcom.com/3b2/emulator/>

The 3B2 was a small, multi-user UNIX computer introduced in 1984 by AT&T. It was the primary porting platform for UNIX System V Release 3, but has since faded into obscurity. I built a full system emulator to allow running unmodified UNIX SVR3 software for historical preservation. This project involved a tremendous amount of reverse engineering both hardware and software, as internals documentation was unavailable. Additionally, WE32100 assembler and disassemblers had to be written from scratch. It is released as part of the SIMH historical computer emulation framework.

Symon 6502 Emulator

<https://github.com/sethm/symon/>

Symon is an 8-bit system emulator, including full emulation of the 6502 CPU, 6551 ACIA, 6522 PIA, 6525 CRT controller, RAM, and ROM. It is released under the MIT Open Source license.

EDUCATION

Cornell University

1992 – 1995

Three years toward a BA in Linguistics.