Eric Bloch

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SUMMARY

- Deep understanding of software development practice.
- Technical leadership and strategic, business-focused decision making.
- History of growing teams building cutting edge and/or high-performance products.
- Joy in shipping commercial quality products and services that customers love.
- Open-source advocacy, community building, and contribution (See https://github.com/marklogic, and https://github.com/eedeebee).
- Experience in both start-up and large company environments.
- Hands-on when needed.

I am a detail-oriented software engineering manager with broad experience in Internet technologies, web applications, email systems, education technology, electronic-discovery, search, digital media, computer graphics, user interfaces, anti-malware/security, open-source software, parallel, multi-threaded programming, and distributed multi-user computing environments.

I have hired, managed, directed, and mentored software engineers through all phases of software development. I have an attention to detail, a passion for shipping products, and a strong desire to build software that makes people say, "Wow!"

Mostly what I do is help others kick ass.

EXPERIENCE

Udemy, Inc., San Francisco, CA.

Senior Director of Engineering, March 2017 - present.

Director of Engineering, Teaching and Learning, March 2015 - March 2017.

- See About Udemy for sense of scale.
- Grew team that develops Udemy's core teaching & learning platform by one engineer per month in 2015.
- Reorganized staff and adjusted process so that teams reliably made their 2 week sprint commitments.
- Helped build the Udemy engineering team in Dublin, Ireland from near scratch.
- From 2017-2019, more than doubled team size while directing platform, video, SRE, and full-stack feature teams for consumer & enterprise offerings.
- Directed refactoring of Udemy's entire web application from a custom PHP app to Python's Django.
- Conducted technical due diligence for <u>acqui-hire</u> of Talent Buddy; subsequently integrated staff and shipped Udemy's coding exercises feature to plan in 3 months.

- Designed Udemy's internal engineering rotation program.
- Directed a rearchitecture of the Udemy web application front end to improve quality, test-ability, and performance.
- Delivered innovative features including an instructor analytics app that provides actionable information, a marketplace insights tool, automated machine-captioning of all video lectures, incourse full-text search and an improved course taking experience for students.
- Pivoted existing services infrastructure efforts to Kubernetes and services written in Python and Kotlin.

Hightail, Inc., Campbell and San Francisco, CA.

Director of Engineering, April - December 2014.

- Provided technical leadership and engineering for teams building webapps, developer APIs, and user management.
- Spearheaded process improvement efforts, including continuous integration, configuration management, and deployment tooling.
- Left two months after CEO change.

MarkLogic Corporation, San Carlos, CA.

Director, Community, Fall 2009 - February 2014.

As part of the Product Management team:

- Drove greater than 10-fold growth in developer community membership, via online content, messaging, evangelism, and outreach.
- Managed the <u>MarkLogic Developer Community Site</u>, including tutorials, screencasts, Q & A, and interactive content.
- Managed R&D experiments, including database connectors, libraries, and tools.
- Ran the MarkLogic 7 Beta program, more than doubling program participation and all metrics from previous years.
- General management of <u>MarkMail.org</u>, a community-focused searchable message archive of more than 8000 open-source mailing lists and more than 60M messages. As the company's premiere demo, MarkMail shows off powerful search and discovery features that can be used to find answers and understand activity in popular open source projects.

<u>Clearwell Systems, Inc.</u>, Mountain View, CA (acquired by <u>Symantec</u> in 2011).

Director, Engineering, Fall 2006 - Summer 2009.

Research and development of the Clearwell E-discovery Platform:

- Delivered two major, <u>award winning</u> product releases that brought Clearwell to profitability during my tenure.
- Managed server, UI, and build/release teams developing a high-performance, scalable, distributed ediscovery search index, query language and search execution engine as well as user-interface components.
- Provided detailed project planning, scheduling, and tracking.
- Led architecture, design, and development of the appliance's web UI.
- Provided technical evaluation and integration of 3rd-party software for document review features.

IronPort Systems, Inc., San Bruno, CA. (acquired by Cisco Systems in 2007)

Director, Engineering, Spring 2005 - Summer 2006.

Ground-up R&D for the <u>IronPort S-Series</u> web security appliance:

- Hiring and management of development team for "startup within a startup" including two US-based teams and one offshore.
- Technical due diligence for acquisition of <u>iMimic Networking</u>, developer of an industry-leading high-performance web proxy cache.
- Integration of acquired engineering team.
- Collaboration with product management on product definition.
- Evaluation, research, and selection of 3rd-party anti-malware software and signatures.
- Architectural guidance for both IronPort S-Series appliance and <u>SenderBase</u> <u>Web Reputation</u> services.
- Detailed project planning, scheduling, and tracking.
- Filing of several patents.

Laszlo Systems, Inc., San Mateo, CA.

Senior Software Architect, Winter 2001 - Summer 2002.

Director of Engineering, Product Development, Summer 2002 - Spring 2005.

See the OpenLaszlo site for details on the OpenLaszlo Rich-Internet Application Platform. Responsibilities:

- Detailed project planning and scheduling.
- Assessment and selection of software development technologies and tools, including automation and test.
- Mentoring of junior engineers.
- Performance studies.
- Pre-sales, sales-engineering, fund-raising, and due-diligence support.

Major accomplishments:

- On-time delivery of two award-winning releases of the Laszlo Presentation Server.
- Filing of two patent applications.
- Laszlo applications have been served to more than 10 million consumers.
- The Laszlo Presentation Server and the <u>Behr Colorsmart Application</u> created with it were both nominated for Webby Awards in 2002.
- Laszlo was nominated for a 2005 Codie award for open source software.

Incremental Images, Inc., San Francisco, CA.

Senior Software Engineer, Summer 2000-Summer 2001.

Incremental Images (a wholly-owned subsidiary of Mental Images as of August 2001, since acquired by NVidia) was founded in 2000 to create software for Internet applications that require 3D graphics. The company's approach was a server-side rendering solution that provided benefits not found in numerous other web 3D systems, including 3D data security, support for arbitrarily large models, fine-grained collaboration, and support for *simple* browsers (no plugins or java are required).

• Co-designed and co-implemented Reality Server, the company's first product, a extendible, multiuser, collaborative, portable, graphics application server capable of supporting photo-realistic rendering of arbitrarily complex scenes over the Internet. I was also the thread-safety czar for a team of 10 engineers and I served as a mentor to some of the junior engineers. • Led the design and implementation of a 3D chess game using the Reality Server.

Silicon Graphics, Inc., Mountain View, CA.

Technical Staff, Digital Media Software Engineering, Summers 1994-1995. October 1996-1999.

Technical Lead, Digital Media Software Engineering, 1999-Summer 2000

- Led the design of and implementation of SGI ShotMaker, an extensible, frame-accurate video capture and playback software utility for SGI's IRIX and Linux workstations and servers.
- Served as a digital media technical liaison between SGI and a number of third parties, including both software and hardware developers.
- Worked with 3rd party ISVs including Discreet Logic, Jaleo, Mathematical Technologies, Interactive Effects, and Philips to help them bring up their applications on SGI's HD-I/O video product for Onyx2 and Origin2000 systems.
- Implemented part of the QuickTime API on top of SGI IRIX6.3 digital media libraries including major pieces of the Sound Manager and Movie Toolbox. This implementation is used by Adobe Premiere 4.2 on O2.
- Designed and implemented the IRIX 6.3 Movie Library playback engine.
- Designed and implemented a demo digital video editor.

Oracle Corporation, Redwood Shores, CA.

Technical Staff, Tools and Multimedia Division, Summers 1991-1993.

- Designed and implemented key pieces of the OSF/Motif version of Oracle's proprietary graphical user interface (GUI) and multimedia meta-toolkit, Toolkit2.
- Maintained the PostScript printer driver for Toolkit2.

Technical Staff, UNIX Products Division, February 1990-June 1991.

- Responsible for all development on the entire HP9000 Series 300/400 UNIX product line.
- Ported, debugged, and analyzed the performance of two production releases of the Oracle (V6) database and related tools (including SQL*Forms, SQL*ReportWriter, and CASE Products).
- Ported and implemented pieces of Orakit (Toolkit1)/Motif and Orakit-based products (SQL*Forms[V3] and Oracle*Graphics[V1]).

Harmonic Lightwaves, Santa Clara, CA.

Consultant, September 1989-January 1990.

- Consulted on the design and setup of a local area network (LAN) used to run both the engineering and business aspects of the company.
- Wrote software to calculate and help visualize the effects of overlapping higher-order frequencies in channel standards used for cable TV transmission.

SKILLS SUMMARY

I have an expert knowledge of Java, JSON, XML, UNIX operating systems, HTTP and web proxy cache technologies.

I have broad experiences with JavaScript (and ExtJS and Angular in particular), HTML/CSS, Python, PHP, Perl, C/C++, Amazon Web Services (AWS), XQuery, STL, Microsoft Windows, MacOS X, Docker, benchmarking, system tuning, real-time applications, portability issues, IMAP and related email standards, TCP/IP, DNS, and related Internet standards, XSLT, Web Services and servers (Apache HTTPD), SOAP, JPEG, JFIF, OMF, ITU and SMPTE standards, QuickTime, Fortran, OpenGL, PostScript, TrueType Fonts, Maple, SQL, MySQL, the Oracle RDBMS, several NoSQL document databases (MarkLogic, MongoDB, CouchDB) PHP, Perl, Python, SPSS, and a variety of other statistical packages.

I also have experience with QA processes and automation, continuous integration, project planning, and several source code control systems.

PATENTS

I am a named inventor on

- <u>U.S. Patent 6,792,468</u>, "Frame-accurate transport of media data across a data network"
- <u>U.S. Patent 7,275,105</u>, "Enabling online and offline operation"
- <u>U.S. Patent 7,634,543</u>, "Method of controlling access to network resources referenced in electronic mail messages"
- <u>U.S. Patent 7,809,796</u>, "Method of controlling access to network resources using information in electronic mail messages"
- <u>U.S. Patent 7,849,507</u>, "Apparatus for filtering server responses"

I am also named on one current U.S. Patent Application:

• <u>20030195923</u>, "Presentation Server"

EDUCATION

Stanford University, Stanford, CA., 1991-1998.

Attained Ph.D. candidacy in sociology, specializing in social aspects of technology, organization theory, and quantitative methodology.

A.M in Sociology, 1993. Departmental fellowship 1991-1992.

M.S. in Computer Science, specializing in scientific computation, 1990.

Brown University, Providence RI.

Sc.B. in Computer Science and Mathematics, 1987.

Elected to Sigma XI. Baxter-Travenol Merit Scholarship 1983-1987.

Brown Band for all 4 years!

PERSONAL

Hobbies include hiking, blues, frisbee, racquet ball, bowling, raising twins, cooking, and eating.

I run the web site for my wife, Dr. Isabell Beddow's medical practice.

Occasionally, I make noise with my trombone and I was most recently a member of the <u>Tribal Blues Band</u> from 2008-2016.