

# Orion A. Reblitz-Richardson

Berkeley, CA

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## OBJECTIVE

Exploring hands-on engineering leadership opportunities with a particular interest in AI.

## SUMMARY

15+ years experience providing novel solutions to hard problems. Excel at strategy, managing small teams, and communicating technical details to a variety of audiences.

Seven patents filed on voice transcription, collaborative editing, and creation of media maps.

## TECHNICAL SKILLS

Technologies:

**Artificial Intelligence:** Exploring TensorFlow, Theano, and other modern AI packages. Tackled clustering, classification, and prediction tasks in Python. Applied AI theory to a variety of other problem spaces as well. Studied under Marvin Minsky, Rodney Brooks, and Patrick Winston at MIT.

**Rich Internet Applications:** AJAX, JSON, REST, Closure Library, Angular, Django and other MVC frameworks, Apache, Lighttpd, NGINX, HAProxy

**Cloud:** Amazon EC2, S3, SQS, CloudFormation, and orchestration tools such as SaltStack

**Sockets and Protocols:** Asynchronous I/O including Java NIO, custom-designed full-duplex communication protocols, TCP, UDP, HTTPS/SOCKS proxy negotiation, Jabber / XMPP, HTTP, IMAP, POP, SMTP, and MAPI

**Mobile:** iOS, Android, BREW, Symbian, including usability, design, and creation of UI frameworks

Languages:

Python, Objective-C, JavaScript, C/C++, Java, C#, PHP, Perl, Common Lisp, VoiceXML, SQL (PostgreSQL, MySQL, and Oracle), UTF-8, UTF-16, UCS-2.

Tools:

Develop on Ubuntu and macOS. Packet tracing with Ethereal, profiling C++ using Purify / Quantify, and JavaScript debugging with Chrome.

## PROFESSIONAL EXPERIENCE

*10/12 – present* **Founding Engineer, Mappable, Berkeley, CA**

Implemented the first version of mappable.com, a data-driven directories of music where users reconnect with artists they love and discover new ones. Leveraged Python, Django, and some C/C++ for core algorithms (now patented) to achieve this. Hired an incredibly talented team of twelve engineers to extend it with technologies like WebGL, Emscripten, Angular, igraph, pandas, and others.

Continuing to remove roadblocks for the team. That includes management, coordination, reviews, patents, as well as writing software on backend, front-end, and iOS. Also, ordering lunch as needed.

*5/11 – present* **Founder, Distiller Labs, Berkeley, MA**

Distiller Labs explores new ideas in AI, web, and mobile, and is my base for consulting work. Working on AI concept learning and empathy (understanding people) through neural networks and other machine learning techniques. Using TensorFlow at the moment.

*10/11 – 10/12* **Consultant, Novartis Institutes for Biomedical Research (NIBR), Emeryville, CA**

Consulted on web applications, informatics, and engineering practices like Agile and SCRUM. Worked with close-knit team of engineers and scientists on study management, inventory management, data visualization, plus other internal web solutions.

*2/09 – 7/11* **Manager, Front-End Engineering, Current TV, San Francisco, CA**

Recruited and managed a team of seven software and QA engineers to extend current.com and associated technology. Moved from waterfall to SCRUM with a two-week sprint. Worked daily with product management translating product requirements into features, stories, and acceptance criteria. Worked closely with CTO and President of Digital on product vision.

Improved site reliability and performance. Implemented custom A/B testing, performance tracking, cookieless domain, long time-to-live, and universal URL versioning. Page render reduced to 300 ms and total initial client load time to less than 4 seconds. Served 1.3M page views per day.

12/07 – 3/10

**CTO and Co-Founder, Zhura (acquired by Scripted)**, Boston, MA

Responsible for technology vision, architecture, and development of industry-grade online screenwriting software. Created Google Docs for screenwriters with full real-time collaborative editing. Selected technologies such as Amazon S3, EC2, Apache, NGINX, PHP, CodeIgniter, and the Dojo Toolkit. Created industry-grade tools for writers to create and collaborate on screenplay development in real time. Developed novel algorithm for authorship calculation.

Recruited and managed four engineers. Scaled the site to 70 registrations per day and 22k visits per month using two web servers. Contributed to a number of open-source projects in the process. DOMPDF, Dojo Offline (via Google Gears), and PEAR OpenDocument are examples.

Collaborated with CEO on business strategy, including partnerships.

3/06 – 12/07

**President and Founder, Racket Networks**, Cambridge, MA

Led four-person team in pursuit of opportunities in local social networking for college students. Solution used laptop Wi-Fi, ad-hoc networking, and XMPP/Jabber protocols to show students the people around them. Users could then chat, share files, and stream music with each other locally.

Pitched business opportunity to investors and grew our adoption at MIT and BU.

10/01 – 3/06

**Project Lead and Senior Software Engineer, Seven Networks**, Redwood City, CA

Developed cross-platform C++ mail client on BREW and Symbian. Collaborated on efficient GUI widget set and event loop portable across mobile platforms.

Worked with others to design and implement Server and Personal Edition. Competed with RIM to access PIM (email, calendar, contacts) on mobile devices. Implemented process management, IMAP/SMTP connector, portions of the Exchange/MAPI connector, and custom proxy negotiation.

6/00 – 7/01

**Software Engineer, Tellme (acquired by Microsoft)**, Mountain View, CA

Tools development for speech recognition improvement. Created and tuned Oracle schema, SQLJ middle tier, and Perl CGI interface. Worked with others to create a scalable infrastructure for gathering and transcribing utterances.

9/99 - 6/00

**Research Assistant, ICMIT Consortium**, Cambridge, MA

Master's thesis used CORBA and Java to connect biological models running at diverse locations and coded in a variety of languages. A physiome of the cardiovascular system was created by integrating independent models of the heart and circulatory system.

1/97 - 1/99

**Lead Undergraduate Researcher, Haystack, MIT AI Lab**, Cambridge, MA

Designed and implemented significant portions of Haystack, a personal information retrieval system that stores e-mail, web documents, plain text and graphics in a searchable index using both database and raw text search. Ported from Perl to Java and designed a web server for high-speed interface into the Haystack kernel.

6/97 - 8/97

**Undergraduate Researcher, Society of Mind, MIT Media Lab**, Cambridge, MA

Designed and partially implemented an inference engine with cognitive power to augment its own code. Programmed structures for storing base knowledge such as "X is-a Y", antonyms, subject-object-verb relationships and descriptors. Supervised by Marvin Minsky.

## EDUCATION

8/95 - 6/00

**Massachusetts Institute of Technology**, Cambridge, MA

BS and M.Eng. in Computer Science, June 2000. Cumulative GPA of 4.7/5.0.

Concentration in Artificial Intelligence. Minor in Science, Technology and Society. Thesis on simulation of the heart physiome.

## INTERESTS

Entrepreneurship, new technology, hiking, traveling, books, math, mycology, and the environment among many other things.