Andrew Ho

San Francisco, CA
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Applicable Job Skills

- Designing, implementing, and operating scalable, highly available, high performance backend systems.
- Deploying systems for load balancing, caching, data storage, and data replication and partitioning.
- Developing application software using Ruby, Perl, C, Java, Scheme, and Unix shell scripting.
- Building tools and processes for managing configuration and deployment in large datacenters.
- Creating server-side applications using Sinatra, Rails, mod_perl, and various Java frameworks.

Work Experience

Groupon
Palo Alto, California — July 2010–March 2016

Principal Engineer. Designed the service oriented architecture for Groupon's core e-commerce platform, enabling unified inventory, order, and payment processing across several lines of business and most major countries around the world. Improved site backend performance, scalability, and reliability to handle consumer traffic with billions of requests/day, tens of thousands of requests/second, and over $2B in gross bookings/quarter. Built and deployed software systems in Ruby to handle PCI and SOX compliance, integrate with third party payment providers, and detect and prevent consumer fraud. Created host configuration management software to manage creation, deployment, user and network ACL management, and auditing for over 20K physical and virtual datacenter hosts. Built Groupon's initial personalization, relevance, and data warehouse infrastructure. Led technical recruiting and hiring efforts, including creating and leading hiring standards and training programs, interviewing hundreds of candidates, and mentoring junior interviewers. Participated extensively in architecture and operational readiness reviews and later remediation work, helped set overall company technical direction as a member of Groupon's Principal Engineers group, and mentored junior co-workers across several organizations.

Microsoft
Mountain View, California — March 2007–June 2010

Senior Software Development Engineer. Designed and helped build WebReco, an HTTP web service for doing voice recognition on audio streams, with duties including publishing internal API specifications, working with mobile device and desktop software teams, and building server-side systems for streaming and transcoding audio in near real time. Integrated Tellme's local business search voice technology with Microsoft owned data feeds, eventually building a system capable of crunching hundreds of gigabytes of XML in minutes.

Tellme Networks
Mountain View, California — February 2000–March 2007

Senior Staff Engineer. Worked flexibly in roles encompassing product development, network operations, infrastructure development, project management, professional services, and developer support. Helped re-architect the Tellme network to handle the demands of millions of performance-intensive directory assistance calls per day. Created and maintained a text processing server farm that processed millions of directory assistance records hourly. Designed and built a high-performance, reliable BerkeleyDB data store that powered the Tellme voice activated dialer product. Designed and shipped XML web services to expose feeds, databases, and other persistent data to Tellme voice portal VoiceXML applications. Wrote a ticket tracking system. Created Oracle data APIs for a Scheme based web application. Helped design and deploy over a thousand servers running Apache/mod_perl, Tomcat, Resin, and custom software.

Talarian
Los Altos, California — July 1999–February 2000

Webmaster. Administered two external websites and the company intranet and knowledge base. Managed major upgrades of corporate website, including producing, auditing, and documenting website applications. Upgraded CGI based Remedy/ARweb applications for technical support. Designed, prototyped, and assisted in final implementation of web interface for Talarian message-queueing software. Administered Apache/mod_perl on Solaris and Microsoft IIS on Windows NT.

Cantrix Software Group

Chicago, Illinois — August 1998–June 1999

Software Development Consultant. Supported, upgraded, and developed new functionality for an existing Unix and Oracle based intranet application. Assisted in the transitioning of a legacy database application from Oracle to MS-SQL Server, including data manipulation and conversion tasks. Rewrote and documented existing database driven web applications.

Motorola Network Solutions Sector

Arlington Heights, Illinois — June 1997–August 1998

Software Developer. Upgraded a legacy web application serving 20,000+ users, including database and interface redesign, project management, and implementation of a web-based frontend to an Oracle database. Automated previously manual internal software distribution processes, including analysis of old process architecture and integration of existing datastores. Administrated departmental intranet publishing process. Provided technical support for Windows NT based systems.

National Center for Supercomputing Applications

Urbana, Illinois — August 1997–June 1998

Software Developer. Designed and implemented an interactive web database cataloging community oriented networks in Illinois. Tasks included CGI programming, HTML design, coordination of goals with a 30-member advisory board, and administration of Apache on HP/UX.

Education

University of Illinois at Urbana-Champaign (Urbana, Illinois)

Graduated with a B.S. in Computer Engineering in May 1999. James Scholar, Dean's List Scholar, and member of the Campus Honors Program and Phi Eta Sigma Honor Society.