CHRISTOPHER MILLER

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OBJECTIVE   To help a team of bright engineers build applications with high quality, scalability, and value.

VALUE SUMMARY

- Hands-on management of software development and devops teams.
- Leadership through subject matter expertise, agile process, and focus on software quality.
- High level of expertise in Java and SQL database-backed web applications.
- Over 20 years as a software engineer, with a well-rounded technical knowledge base.
- Strong "keep it simple" user-centered design instinct, with focus on high value, low cost.
- Excellent interpersonal, communication, and organization skills; can convey technical concepts effectively and efficiently.

EXPERIENCE

2005-present	**Cengage Learning (**acquired startup **Aplia** in 2007**)**	**San Francisco, CA**
2014-present	**Sr. Technology Platform Manager - Aplia**	
2009-2014	**Sr. Engineering Manager – Aplia Platform and Content Engineering**	
2005-2009	**Engineering Manager – Aplia Platform**	
2005	**Senior Software Engineer – Aplia Platform**	

Responsible for all software development, production operations, and tier 3 support for www.aplia.com. Aplia is a SaaS web application for student learning and instructor course management in higher education. It serves problem sets and e-textbooks for hundreds of titles, in over 30 disciplines, to nearly a million students per year.

Awards: Selected from among 1000+ person technology staff as Technology Person of the Year 2014:
https://youtu.be/xjrZSLuoElc

Tech stack: Java, MS-SQL, HTML5, JavaScript, Flash, Spring, Soap and REST services, MongoDB, and many others …

Management Accomplishments

- Managed up to 12 software engineers, devops specialists, and analysts of all seniority levels, including recruiting, training, goal setting, project guidance, career development, and reviews.
- Hired over 25 engineers. Developed standard interviewing best practices and questions.
- Introduced the Agile Scrum process and scaled it to five scrum teams.
- Advised product management and UX teams as to project feasibility. Facilitated data-driven decision making. Consistently negotiated simple, high-value and low-cost solutions to product requirements.
- Assured scalability as customer base grew from 40K to one million new users per year, handling up to 30K simultaneous sessions and 3000 submissions per minute.
- Managed the migration of production operations from a data center to the Amazon AWS cloud, Migrated over 25 servers and a high-availability SQL cluster with only 2 hours down time.

Hands-on Accomplishments

- Relied upon to troubleshoot the most challenging issues around support, scalability, and reliability.
- Integrated the once monolithic platform with at least five other corporate infrastructure services through Soap and REST web services.   Examples are single-sign-on, e-commerce, and multiple content delivery services.
- Designed and implemented a content tagging architecture whereby content items could be tagged to multiple custom taxonomies. This general-purpose architecture served several reporting and navigation features.
- Designed and implemented several self-service content publishing and management tools for authors to push new content live to production servers.
- Made all decisions around relational database schema design for new functionality. Built extensive library of SQL scripts for analysis and support purposes.
- Hosted dozens of information-sharing presentations and cultivated hundreds of pages of technical documentation.

2001-2005	**Keynote Systems** (acquired startup **Enviz** in 2002)	San Mateo, CA

Senior Staff Software Engineer
Developed an application for recording web user sessions and providing analytics to measure quality of experience. System consisted of a reverse proxy for data collection, a session and page re-constructor, and a web application for analytics and session replay.

Following acquisition of Enviz, remained as sole engineer supporting all development, maintenance, operations, QA, and customer support for the Enviz product. Additionally, contributed to several other engineering teams, learning and/or refreshing skills in XML, XSLT, ASP.NET, Struts, C++, and SQL Server.

Tech stack: Java, JSP, HTML, HTTP sockets

Accomplishments
- Championed effort to re-architect data persistence from the file system to Oracle DB. Supervised DBA contractors while re-implementing java data layer with JDBC. Developed a low-risk migration strategy for 10GB of data.
- Conceived and implemented several major performance improvements involving caching, multi-threading, and algorithmic optimizations. Reduced memory usage by orders of magnitude while improving user response time.
- Designed and implemented an "Active Questioning" subsystem to popup survey questions to web users based on the context of their session.
- Maintained custom reverse proxy data collection server code, as well as an importer module to reconstruct page views and statistics from raw HTTP data.
- Took on team process management responsibilities while continuing hands-on development through several release cycles.

1999-2001	**Intellipay**	Fremont, CA

Senior Software Engineer
Built software for real-time payment processing via the Internet. Provided a simple, secure, high-performance web interface to third party payment authorization networks.
Tech stack: Java, Server-Side JavaScript, Informix

1998-1999	**Segue Software** (acquired startup **Eventus Software** in 1998)	San Francisco, CA
1999	**Development Manager**	
1998	**Senior Software Developer**	

Developed a Windows application for web content management. Functionality included HTML parsing and rewriting, site deployment, and site activity analysis. Championed the concept of a browser-based UI.
Tech stack: Visual Basic, Visual C++, Oracle

1990-1998	**Xerox Corporation**	El Segundo, CA
1995-1998	**Technical Lead**	
1993-1995	**System Architect**	
1990-1993	**Member of Programming Staff**	

Held various engineering positions working on software for high-end printing systems. Projects included embedded controller software as well as Windows client software and applications for document scanning and management.
Tech stack: Windows NT, C, C++

EDUCATION

1995	**University of Southern California**	Los Angeles, CA

Master of Science in Computer Science (GPA: 3.70)

1990	**University of California, Los Angeles**	Los Angeles, CA

Bachelor of Science in Computer Science and Engineering