

JOHN M. LEEN

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TECHNICAL
SKILLS

Languages. Proficient in C#, C++, Java, Python. Familiar with HTML, SQL, JavaScript, Perl, Scheme.
Platforms. Proficient on Windows (COM, .NET), Linux (LAMP), JVM, MapReduce. Familiar with Node.js.

PROFESSIONAL
EXPERIENCE

Salesforce.com, San Francisco, California **January 2013 – present**
Principal Software Engineer, Salesforce Functions *remote employee, October 2019 – present*

- One of 4 engineers building Salesforce Platform support for the new Salesforce Functions serverless environment.
- Designed and implemented asynchronous APIs to enable customer developers to integrate their Salesforce Apex codebase with serverless Salesforce Functions.
- Launched the pilot of Salesforce Functions.

Principal Software Engineer, AppExchange App Analytics *remote employee, April 2018 – October 2019*

- Tech lead of a geographically distributed startup team with 4 engineers in 3 regions developing a new telemetry service for Salesforce isvs. The service allows isvs who deliver software-as-a-service on the Salesforce platform to retrieve usage logs from customer interactions with their software, enabling them to audit license compliance and perform usage analytics.
- Launched a pilot and two major releases of the telemetry service. Planned rollouts using cost-to-serve estimates for data storage and retrieval on AWS.

Lead Software Engineer, Custom Schema *remote employee, August 2017 – March 2018*

- Tech lead for the Custom Schema team, with 6 engineers developing the infrastructure by which customers and isvs customize Salesforce by creating virtual database schema.
- Researched and designed the Deployment Cache, a new caching scheme for speed improvement (up to 30% for large workloads) during deployments of customer code. Led implementation of the new caching scheme across multiple teams.

Lead Software Engineer, Apex Code *Seattle office, January 2013 – August 2017*

- Tech lead for Apex Features, with 5 engineers on a geographically distributed team developing the Apex standard library and integration with the Salesforce platform. Apex is a strongly typed language running on an in-house implementation of the JVM, and supports all customer and isv code on the Salesforce platform, including isv applications sold on the Salesforce AppExchange.
- Designed and implemented the Apex Stub API, a metaprogramming interface that enables unit test mocking on a language with no native support for reflection or on-the-fly code generation. Gathered requirements from key isv FinancialForce and vetted the design with FinancialForce engineers. Presented the final API to an audience of customers and partners at Dreamforce 2016, sharing the stage with FinancialForce engineers who presented the work they were building on my API.
- Designed and implemented the type system for External Service Registration, which allows remote web services to be invoked as if they were local Apex classes.
- Replaced script statement counting with CPU metering to improve fairness of shared resources.
- Built internal search tool to analyze customers' use of Apex language and API features and support business decisions regarding features to support or deprecate.

Google, Seattle, Washington **July 2008 – November 2012**

Senior Software Engineer & Technical Lead, Google Maps Vector Pipeline *May 2011 – November 2012*

- Tech lead for the Google Maps vector pipeline team, with 5 developers & 2 test engineers in C++.
- Company-wide point of contact for Google Maps rendering data quality.
- Launched instant edits: user contributions are immediately visible on the map upon moderation.
- Led the team through production emergencies involving external dependencies.

PROFESSIONAL EXPERIENCE (CONTINUED)	<p><i>Software Engineer, Google Maps Directions</i> <i>July 2009 – May 2011</i></p> <ul style="list-style-type: none"> ● Launched bicycling directions on Google Maps, patent us8600658. ● Designed and implemented route describer for landmark-based navigation, launched in India. ● Designed and led implementation of directions pipeline latency improvements. ● Led negotiations to transfer the 5-engineer project from the Seattle to the Zurich office. Established timetables and responsibilities, and trained the Zurich engineering team. <p><i>Software Engineer, Google Enterprise Client</i> <i>July 2008 – July 2009</i></p> <ul style="list-style-type: none"> ● Shipped v1 of Google Apps Sync for Microsoft Outlook. Responsible for email interoperability. ● Architected and prototyped Google Apps Migration for Microsoft Exchange, as leader of a 3-engineer team. <p>Microsoft Corporation, Redmond, Washington July 2002 – July 2008</p> <p><i>Software Development Engineer, Advanced Strategies & Policy</i> <i>September 2006 – July 2008</i></p> <ul style="list-style-type: none"> ● Shipped SecPAL, a security policy language implemented in C# and a custom Datalog engine. ● Defined and implemented language features, API, and web service protocols to support industry use cases including medical records. ● Implemented formal logic model for credential delegation, patents us8607311 & us8839344. ● Demonstrated SecPAL at the IEEE/ACM International Conference on Grid Computing, 2007. ● Co-wrote paper for ACM Conference on Computer and Communications Security, 2008. <p><i>Software Development Engineer, Windows SharePoint Services</i> <i>July 2002 – September 2006</i></p> <ul style="list-style-type: none"> ● Shipped Windows SharePoint Services v2 and v3 collaboration software in C++ and C#. ● Designed and implemented e-mail archival features and Active Directory synchronization. ● Architected and supervised implementation of .NET Code Access Security policy for SharePoint. ● Enhanced JavaScript rich text edit control. ● Debugged internationalization features including complex scripts and non-Gregorian calendars.
EDUCATION	<p>University of California, Berkeley, September 2000 – May 2002</p> <ul style="list-style-type: none"> ● M.A. in Mathematics, May 2002. Thesis on minimal surfaces under Professor Alan Weinstein. ● Graduate Student Instructor, Computer Science. Taught discussion sections and labs for <i>Structure and Interpretation of Computer Programs</i> and upper-division algorithms. <p>Brown University, Providence, Rhode Island September 1997 – May 2000</p> <ul style="list-style-type: none"> ● Combined Sc.B. Mathematics with Honors, A.B. Classics, Magna Cum Laude, May 2000. ● Awards for school service, mathematics (first place), Greek translation (second place). ● Teaching Assistant, Department of Mathematics. Developed online discussion software and led online discussions. Held office hours for courses in differential geometry and linear algebra. ● Software developer on the largest Tetris game in the western hemisphere (www.techhouse.org/bastille). ● Wrote for <i>The Catalyst</i>, Brown's interdisciplinary sciences and humanities magazine.
INTERESTS	Photography; jazz and classical music; classical history and languages.