

John Millikin

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Degree: B.Sc. Computer Science, California State University Bakersfield (2002 - 2007)

Languages: **Strong** C++, Go, Haskell, Python – **Gets By In** C#, Java, JavaScript, Ruby

Buzzwords: Distributed Systems, Linux, Monitoring, Networking, REST, RPC

Experience

Stripe (2017 - present)

- Part of a team that [migrated scheduled batch workloads from Chronos to Kubernetes](#).
- Providing technical leadership and guidance for a migration to a new infrastructure platform, based on universal TLS and best-of-breed open-source technologies (including Bazel, Envoy, gRPC, and Kubernetes).

Google (2011 - 2017)

- SRE for [Borg](#), a distributed cluster management system managing tens of thousands of machines. Worked on all levels of the stack, from Linux kernel dumps to planning month-long rollouts of critical security features.
- Designed and implemented a distributed automated rollout system for highly-privileged services. Onboarded 50+ services, reducing manual effort by XX hours per week across the team.
- Designed a new hardware upgrade process to track capacity changes and enforce safety requirements. Eliminated accidental “overcommitment” from planning mistakes.
- Lead a four-person team to rewrite the aging capacity management infrastructure from a monolithic C++ library into a modularized and easily accessible RPC service.
- Received [patent US9298942B1](#) for an encrypted append-only storage protocol.

Applied Signal Technology / Raytheon (2009 - 2011)

- Received a [TS/SCI](#) security clearance, which covered nearly all work during this period.
- Part of a team that wrote control software for AST’s signal intelligence products.
- Designed and implemented a Qt UI for remote product administration via an encrypted link.

Apollonia Dental Center (2005 - 2009)

- Reverse-engineered a proprietary database format (Dentrix) and built a real-time data conversion tool.
- Built an analysis pipeline and a visualization system so non-technical users could monitor business metrics (cashflow, late lab cases, demographic effectiveness of marketing campaigns).
- Built an inventory tracking system for medical and office supplies, integrated with demand projections from scheduled future appointments. Significantly reduced both over- and under-ordering of supplies.
- Built a document manager for 1000+ operational, medical, and HR forms. Generated patient-specific PDFs using the OpenOffice RPC interface.
- Built a web-based timeclock compliant with California overtime law. Reduced legal risk from incorrect accounting in previous COTS system, and allowed employees to check their expected earnings at any time.

Personal / Hobby Projects (john-millikin.com/software)

- Various useful Haskell libraries, including an implementation of the D-Bus protocol ([haskell-dbus](#)), a command-line option parser ([haskell-options](#)), and bindings to GNU NCurses ([haskell-ncurses](#)).