**Darren Gilroy - Software Engineer**
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## SUMMARY OF QUALIFICATIONS

- **C++** – Most recent 3 years, writing distributed micro-services in modern C++14
- **Java** – 15 years until 2014, in all frameworks and application types
- **Perl, Python, Bash** – supported production services
- **SQL** – expert: 20 years of advanced SQL. PostgreSQL, BigQuery, Oracle
- **Motivated** by getting something shipped that people use and like

## PROFESSIONAL EXPERIENCE

**Cedexis, Inc.** – August 2014 - present

Senior Software Engineer. One of three on the platform team, responsible for the maintenance and growth of our internet-scale DNS and HTTP services.

- Lead service rewrites resulting in lower machine counts, in one case a reduction from 64 to 18 hosts
- Dropped p99 latency 80% (!) by replacing a central lock with atomic updates plus a form of garbage collection (QSBR)
- Reduced memory requirements by rewriting core data structures, in one case from 8GB/service to 1.5GB/service
- Decomposed a monolithic code base into half a dozen services, enabling faster iteration and safer deployments
- Started the practice of code review, unit testing, and continual refactoring
- Replaced a kafka/spark cluster running on AWS with some bash scripts, lowering operational costs and the need for specialized training
- Ported away from bespoke threading, http, JavaScript, and similar infrastructure code to off-the-shelf libraries
- Split a single large common-code library into single-purpose modules, making source-level dependencies clear at build definition

time
- Rewrote global configuration glue code from python to C++, dropping SLOC by 2/3 and reducing update latency from 3 minutes to 20 seconds for our 40 global data centers
- Improved reliability to the point where the CEO stopped showing the "Customer Impacting Downtime" side in all-hands
- I learned C++ for this job

**UTi Worldwide** – July 2013 - August 2014
Senior Software Engineer. Lead a small team to develop accounting reconciliation software for end-of-month close. Mentored two junior developers.

**Jive Software** – October 2011 - February 2013
Senior Software Engineer on the architecture team.

- Spent six solid months working a big bug backlog to get the team out from under some debt
- Performance improvements in caching tier
- Designed and implemented a new permission system to allow bulk checks against query results in both SQL and Lucene

**Tripwire, Inc.** – April 2007 - October 2011
Senior Software Engineer. Lead architecture team at Tripwire.

- Converted load process from a concurrent to a job-parallel system, reducing lock overhead and improving performance by 20%
- Improved in-house ORM tool to generate better SQL queries
- Implemented a tree in SQL to allow bulk loading of arbitrary-depth trees with single statements
- Designed a message-passing architecture so new features could be developed outside of the large central code base. It was successfully implemented by a different team.
- Rewrite RPC system to improve failure conditions and just generally simplify the code managing remote job state
- Designed an asynchronous message passing architecture for the Tripwire agent to replace java RPC, and lead a team team to implement it in C++

**Fujitsu America** – May 2002 - April 2007

Software Engineer. Designed and implemented software for global website consolidation across all Fujitsu countries. Implemented code review and coding standards, established unit testing and component development.

**Consonus, Inc.** – July 1996 - April 2002

Lead Developer at Consonus for six years; developed Internet e-commerce applications.

**–October 2017–**