Taneli Otala

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Professional Summary

As a strong executive software engineering manager, I get the job done by knowing when to be the architect, mentor, or programmer.

Dedicated and highly knowledgeable software engineer with decades of experience leading engineering teams for established companies and start-ups. A CTO/VP Engineering management unicorn that can architect systems; build and mentor teams; and dig in and code when necessary. Delivers efficient big data solutions that are scalable, secure, and minimize technology debt.

Core Achievements

- Authored 3 patents. Awarded patent 9,830,368 titled, *Asynchronous parallel processing of log data.*
- Exponentially scaled distributed systems by redesigning the code base.
- Accelerated development time by using Open Source Software (OSS) mindful of licensing costs.
- Transitioned Perl and Java teams to a Scala development team (Object Oriented Programming + Functional Programming).
- Managed teams from 3 to 130.

Experience

Independent Consultant | 2019 - present
San Francisco Bay Area, CA

- Designed and built big data systems using Scala.
    - Supervisory Control And Data Acquisition & Internet of Things (4th Generation SCADA & IoT) system.
    - Big data parsing, ingestion, and analytics on Spark & Delta Lake Tables.
- Built a website creation/management tool to manage websites on servers.
- Retooled home server firewall by building a distributed predicting firewall written in Scala.
- Enhanced Voice-Over-IP (VoIP) server by adding features including robocall detection and re-route.

Chief Technology Officer | 2018–2019
monARC Bionetworks | San Francisco Bay Area, CA

- Restructured, grew, and mentored 7 person development team to match the needed skills to develop a robust React-Native, Scala multi-platform mobile/web application.
- Redesigned patient data collection system by ditching PHP shopping cart in favor of TLS 1.2, Microservices, MariaDB, Scala/Java code base; creating a wildly scalable and secure patient system that increased the patient base from 2,500 to 637,000.
- Improved patient system to be fully Personal Health Information (PHI) and Personal Identifiable Information (PII) compliant and secure on the cloud.
- Redesigned the data schema (MongoDB, Oracle EPIC) to allow data science to be performed on the patient data to match them to clinical studies.

Chief Technology Officer | 2012-2017
Glassbeam | Santa Clara, CA

- Architected and coded a new backend system in Scala that conformed to the existing SPL parsing language, but used Cassandra database instead of Vertica which improved the speed by 10,000 times.
- Deployed the backend of the system on AWS as a result of the new architecture.
- Hired and mentored an 8-person development team in India to continue the system redesign.
- Transitioned system from Shared Nothing to Shared Everything architecture reducing the Total Cost of Ownership (TCO) to zero. Reduced system from 9 machines per 8 customers (total 72 machines) cluster to 6 machines shared between all customers (total 6 machines).

Chief Technology Officer | 2008-2011
Atomic Labs | Mountain View, CA

- Transformed a manual system to an automated build and Continuous Integration/Continuous Delivery (CI/CD) system streamlining development by designing a build system, cutting 8 cross-platform builds/validation from 1.5 days to 0.5 hours. (Linux, BSD, Solaris, Windows NT, Windows 10, Mac).
- Designed a database reactor interface with multiple databases (SQLite, MySQL, Informix, Oracle, PostgreSQL, SQLServer, DB2, Sybase, ODBC, Interbase) by developing a database translator to produce asynchronous gradual queries with a SQL dialect translator.

VP Engineering | 2007-2008
Jaxtr | Menlo Park, CA

- Improved the reliability of the VoIP phone system by creating 3 parallel systems that increased the uptime from 50% to 99.999% by rotation. Built a 9-machine data center (at Equinix).
- Optimized the database to increase the user base from 10,000 to 10,000,000.
- Increased engineering team size to 3 hires and an outsourced team. Managed a remote team in India to monetize phone calls that were free to turn a profit.

Chief Technology Officer, VP Engineering | 2002-2006
Sensage | San Francisco, CA

- Switched from VPeng to CTO. Started real-time Security Information Event Management (SIEM) allowing the company to pivot from Log Management Systems (LMS). Hired new VPeng.
- Designed and built a C++ large-scale distributed architecture with minimal latency delivering 1 million transactions per second using a cluster of 4 machines.
- A horizontally scaled system with a cluster of machines improving speed/performance.

Skills

- **Leadership:** C-level**,** system architecture, people management, open-source, security
- **Big Data**: scalability, cloud computing, distributed systems, machine learning, architecture design
- **Coding Languages and Frameworks:** Databases, Scala, C++, Java, Linux, React Native, Cassandra, Web Services
- **Spoken Languages:** Finnish/Swedish/English (native); French (fluent); German (conversational)

Education

Oulu University, Oulu, Finland | EE, ME, CS
Oulun Lyseon lukio (college), Oulu, Finland | Magna Cum Laude