

# ROMAN CHERNIKOV

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Location: San Francisco Bay Area, US

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## Software Engineer, Java, Relational Databases, Business Solutions

### BUSINESS OBJECTIVES

With over 15 years of experience in business management software design and development, I am a seasoned java software engineer with a passion for delivering high-quality enterprise solutions. I have a proven track record of success and am seeking challenging opportunities in the San Francisco - San Jose area where I can contribute my skills and expertise to a company's growth and success.

### PROFESSIONAL ACCOMPLISHMENTS

With experience working on high-profile teams at Salesforce and VMware, I have a proven track record of delivering high-quality functionality on time. I designed and implemented a heterogeneous data comparator, significantly improved the parallelization of data processing, and developed multiple features such as licensing and database table slicing. Additionally, I led the design and integration of public REST APIs and worked with change data capture and data visualization technologies.

### SUMMARY OF QUALIFICATIONS

- **15+ years** in enterprise application design, domain-driven and test-driven development.
- Expert in **OOD, OOP, Design Patterns, SaaS/SOA; Java**. Worked with C#, C++; Use **Git**, Perforce.
- RDBMS design: **Oracle 10i-12c PL/SQL**, PostgreSQL, MS SQL, MySQL; ORM; Oracle CDC.
- Spring and **Sprint Boot** frameworks, Web Services, Microservices, REST API, Avro.
- Virtualization: **Docker**, Cloud Computing, ESX, vSphere, vRA, vCloud Director (vCD).
- Web development: JavaScript, AJAX, HTML, CSS, XML, XSLT.
- Reporting and analytics: SSRS 2008-2022, custom reports of any complexity.
- Scripting on Unix/Linux, Mac systems, Windows: Bash, Python, Perl, JavaScript.

### WORKING SKILLS

- Strong exp. in all stages of software R&D such as requirement analysis, design, testing & deployment.
- Solid experience with relational databases: design, data mining, reporting, and integration solutions.
- Performance code optimizations, SQL/triggers, JVM tuning; performance & scalability improvements.
- Software security: PKI, TLS, JWT, exploits, SQL-injection, DoS attacks, HeshiCorp integration.
- Experience in migrating legacy business applications to the modern platforms; refactoring.
- Strong orientation on quality/CI: JUnit, TestNG, Jasmine, Test-Driven Development, Jenkins, Scrum.
- Good organizational skills. Managed multiple projects, defined priorities, always met deadlines.

### PROFESSIONAL EXPERIENCE

#### Principal Software Engineer at Salesforce, San Francisco, CA, 2019 – 2023

- Redesigned a table slicing algorithm to improve data processing parallelization. The improvement increased the row sub-set limit from millions of rows per table to billions. The significant improvement allowed data extraction even before the slicing is finished while minimizing impact on RDBMS performance. (Java, Oracle, MySQL, PostgreSQL/SDB)
- Contributed to the design of data stream product for seamless data copying to OLAP and data lakes by tapping into RDBMS CDC; Responsible for the object materialization using Salesforce Partner API.
- Led development of security features including TLS/mTLS support, integration with Hashicorp Vault.

#### Senior Staff Software Engineer at Griddable, San Jose, CA, 2017 – 2019

- Contributed to an early stage start up: real-time/offline data cloning between various RDBMS. (Java, CDC, Oracle LogMiner, Oracle GoldenGate, MySQL, PostgreSQL, MS SQL Server)
- Abstracted the RDBMS layer to separate business logic from database specifics; Isolated differences between various JDBC drivers, reused db connections, fixed all db leaks, and optimized specialized SQL

more efficiently. It led to 400% defect reduction i.e., in special char/UTF support.

- Designed and led development of database comparator that finds and reports any data discrepancies between heterogeneous data stores. It scaled extremely well to compare databases with terabytes of data. Wrapped in CLI. (Java, Oracle, MySQL, PostgreSQL)
- Designed and implemented JWT based licensing feature to generate resource or time limited licenses.
- Improved performance of components by 10-240% by reducing db-round-trips & other optimizations.

### **Staff Software Engineer at VMware, Palo Alto, CA, 2007 – 2016**

Worked in Cloud Computing, LabManager, AppDirector, vRealize Automation R&D teams. Promoted within the first year from Senior Software Engineer to Staff Software Engineer.

- Worked on deployment and “day 2” related features of VMware Application Director. Responsible for AppD public REST API design & implementation. (Java, Spring, PostgreSQL, Hibernate, Redis)
- Extended ORM/service layers, virtualization domain logic, and CLI.
- Alone converted the vCloud Director database to Oracle and PostgreSQL; overcame the challenge of converting extremely complex views and stored procedures without any negative performance impact.
- Significantly improved database performance (sometimes by 10-60 times) of the catalog and deployment related vRA functionality. Analyzed hundreds of SQL statements and arranged a set of indexes to balance SQL performance and index maintenance overhead. (PostgreSQL, Java, Hibernate)
- Designed and developed company-wide reporting solution to improve defect management process; Produced hundreds of SSRS reports to support DevOps. 80 teams within the company used them daily. Built summary, trend, drill-down reports and dashboards. (SSRS, C#, SQL, MySQL)
- Mentored my colleagues in the best database practices, e.g. design, normalization, SQL optimizations.
- I advanced dev and QA processes inside the Cloud Computing team by resolving technical challenges, mentoring QA engineers in Java and OOP, and creating frameworks. Designed and led development of API and GUI frameworks (**Java**) to fix the automation process.

## **EDUCATION**

MS in Computer Science, Kharkiv National University of Radio Electronics, Ukraine.

## **PORTFOLIO**

Please review my detailed portfolio on my website: <https://rchernikov.com/portfolio>

## **OPEN SOURCE**

- 2016 – SSRS Calendar on [GitHub](#). Transformed a static data-grid into a dynamic calendar.

## **AWARDS AND PROMOTIONS**

- 2022 – Received the High-Quality Code Maintainer award for sharing knowledge and providing valuable code reviews.
- 2018 – Promoted to Senior Staff Engineer for designing and developing the static data comparator.
- 2015 – Recognized with an award for redesign and optimizations of the existing CI pipelines.
- 2011 – Officially recognized for prototyping and building a company-wide reporting solution.
- 2008 – Received a promotion within the first year at VMware for outstanding performance and high contributions to the company's success.