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PROFESSIONAL **Dell EMC Corporation. Irvine, CA**  
EXPERIENCE **(former EMC<sup>2</sup> Corporation)**  
*Principal Software Developer*

**November, 2011 - present**

- ✓ Development and maintenance of the eCDM copy management and data protection system. Responsible for a security component (Java, JavaScript)
  - As a member of a SCRUM team, have been developing a backend security (AAA) component for product access control with REST API for communication. Implemented in Java 8 using various Spring technologies. Based on open standards like JWT, OAuth 2, etc.
  - Designed and implemented versioned resource reference (JSON, REST) and corresponding data model definition (Java) with persistence (Elasticsearch) for the AAA component.
  - Designed and implemented message and exception localization facility to produce proper language responses depending on REST request headers. Based on Spring message sources, hierarchical Java resource bundles, and ICU compliant message format specification.
  - Developed and enhanced the product's core Java libraries to facilitate rapid code development using object oriented and functional programming capabilities available in Java 8+ (based on the extensive experience in other languages).
  - Maintained and enhanced the corresponding web based UI component for user access and AAA configuration (Angular, JavaScript/TypeScript, NodeJS), adopting "full-stack" development initiative across the product teams.
  - Improved and enhanced Puppet based VM build and deployment eliminating the need for intermediate scripts, to fully benefit from Puppet declarative style of system state definition.
- ✓ Development and maintenance of Avamar Backup and Recovery Software System with data de-duplication. Responsible for providing technical lead in advancing distributed software deployment and remote node configuration system component (Ruby, Java, C++).
  - Analyzed the existing system for shortcomings and came up with presentations suggesting ways to greatly improve system design and development practices, both short and long term. Eventually implemented in full proposed scope.
  - Designed and successfully implemented a platform abstraction layer for gathering and analyzing the data from remote Linux nodes. Based on that, introduced full support for a new storage hardware platform.
  - Designed and led the implementation of a deployment build tool, consolidating all build related code from individual product release branches into a separate project, improving the bug fixing and new feature development process with backward compatibility.
  - Provided expert advise and coaching for gradually transforming the existing legacy code base into maintainable well-layered OO design. Educated the team on modern OO design, development practices, and advanced language application techniques.
  - Prepared reading and video training materials and provided in-depth knowledge transfer to a remote team at US (Irvine) and China (Chengdu) locations.
- ✓ Took on the responsibility of building and maintaining open source tool chain used in the team's development processes. Developed a generic packaging solution for tools distribution based on my own open source facilities.
- ✓ Expert in source code management and product release maintenance (SVN, Perforce, Git).

**Quest Software, Inc. Aliso Viejo, CA**  
*Senior/Lead Software Developer (Level 4)*

**November, 2005 - November, 2011**

- ✓ Development and maintenance of SharePlex for Oracle, the industry leader in Oracle replication, currently in use at many Fortune 500 companies.

- ✓ Ensuring product functionality on all commercial and open UNIX platforms, as well as Windows Server 2000/2003 via MKS Toolkit/Interix.
- ✓ Responsible for transitioning to C++ (tools, product code, developers' mindset) and source code adaptive redesign/refactoring, as well as advancing various internal subsystems for modern market requirements.
- ✓ Introduced much more capable build, repository and distribution systems that made huge impact on overall code management and maintenance improvements.
- ✓ Introduced unit testing in C (Check) and C++ (CppUnit).
- ✓ Picked up and successfully completed transition to 64-bit product architecture on all supported platforms, including Microsoft Windows.
- ✓ Led the effort to significantly improve system throughput and performance; developed a benchmarking facility to collect the metrics for estimating the effectiveness of the applied performance improvement techniques.
- ✓ Re-implemented vital internal subsystems with compatibility layers for gradual transition of the enormous legacy code base to a modular design open for better testing and maintenance.
- ✓ Implemented long standing security requirements for non-privileged product install and operations. Introduced a better authentication facility.
- ✓ Designed and implemented a stand-alone Web Services API adaptor for SharePlex with Ruby C++ extensions and Ruby on Rails. Supports SOAP, XML-RPC, WSDL. WSDL-based client access code generation for Java and Ruby. Among other many uses, provides the data for the SharePlex monitoring solution integrated with the company's Foglight<sup>TM</sup> product.
- ✓ Initiated and prototyped the transition of product API completely to modern technologies such as RESTful web services. Implemented a new product subsystem which facilitates such transition via integration with internal Ruby on Rails server and automatic protocol selection.
- ✓ Played leading role in presentations, training and coaching to help developers master modern development techniques and methodologies.

**Tone Software Corporation. Anaheim, CA****February, 1997 - November, 2005***Senior Software Developer*

- ✓ Development and maintenance of the CompuLert device/application monitoring, alerting and message storing system (Solaris, UnixWare, MP-RAS, Linux). The system uses proprietary fast circular data storage system and X11 GUI clients. Implementation languages: C, C++, shell scripts.
- ✓ Development and maintenance of the ReliaTel telecom monitoring, management and reporting system (Solaris, Linux). Uses Oracle (9i/10g) and PostgreSQL as the data storage back-ends. Java and Web based GUI. Reporting subsystem is implemented as a J2EE EJB application. Implementation languages: C++, Java, Ruby, shell scripts.
- ✓ Responsible for the data acquisition and routing subsystems, including collecting Unix processes runtime statistics. The data collected via serial and network devices, terminal servers, SNMP-capable devices, modems, X.25, etc.
- ✓ Implemented data collection and processing from PBX devices, such as Avaya Definity G1/G2/G3, Nortel Meridian and others.
- ✓ Designed and implemented a modular framework for supporting new equipment and communication devices.
- ✓ Developed a fully unit tested template based C++ collection library very similar in API to Java collection library on top of standard STL containers. Implemented a lightweight garbage collection facility for C++ with object notification.

- ✓ Designed, implemented and maintain the software build environment (based on GNU make, and later on jam) integrated with multi-platform distribution preparation facility (Ruby based, developed by myself) and source control systems (SCCS, CVS, Perforce).
- ✓ Designed and implemented the acceptance testing tool (Ruby) currently very successfully used by the company's QA department for all in-house testing of Unix and MVS Mainframe products.

**DataX/FLORIN, Inc. Moscow, Russia****March, 1994 - February, 1997***Computer Programmer Analyst (technical lead for a team of 5 developers)*

- ✓ Developing and maintenance of Cyrillic Support Manager (CSM) multi-platform multi-encoding localization product for SCO Unix, Interactive UNIX, SunOS, Solaris, HP-UX, UnixWare, SGI Irix, AIX, OSF/1 (Digital Unix).
- ✓ Responsible for tty line support, printer support, native software distribution packaging, etc.
- ✓ Developed terminal emulator FANCY (MS-DOS) with on-screen Cyrillic encoding adjustments. Performed operating system, network and Informix Online administration.
- ✓ Performed customer UNIX training in operating system design, administration, system programming, shell and awk scripting at the company's certified training center and at BULL (Paris, France). Took active part in customer technical support.

**Garment Association "SMENA". Moscow, Russia****July, 1992 - March, 1994***Systems programmer & Senior designer (technical lead for a team of 3 developers)*

- ✓ Development and maintenance of comprehensive computer aided production control system STEP in XENIX and Interactive UNIX environments. Responsible for overall design, process management and communication, database access API and printer support.
- ✓ Maintenance and support of inventory management system ORLI (France) in XENIX environment.
- ✓ Implemented in-house data collection and management system.

**Central Research Institute of Technology. Moscow, Russia****May, 1989 - July, 1992***Systems programmer*

- ✓ Developed an extendable BASIC interpreter to be used as a command language to control measuring robot BRAVO.
- ✓ Implemented in-house communication protocols and data transfer facilities (MS-DOS, RAFOS RT-11).
- ✓ Developed and maintained the employee check-in/check-out registration system.
- ✓ Developed C libraries for utilizing UNIX-like API in development for RAFOS RT-11.
- ✓ Implemented the RAFOS RT-11 file system in UNIX for DEC Professional 360 workstations.

**EDUCATION AND  
TRAINING****Moscow Machine Tool and Small Tool Institute (STANKIN)****1983 - 1989***MS in Computer Science*

- ✓ CAD systems design and application, system programming and management.
- ✓ Studied theory of algorithms and numerical methods, functional analysis, operating systems design, theory of formal languages and others.
- ✓ Course transcripts furnished upon request.

**DataX/FLORIN, Inc. Training Center. Moscow, Russia****September, 1995***Informix Online 6 DBA*

- ✓ Informix Online 6 Administration and Tuning

**Quest Software, Inc. Aliso Viejo, CA****April, 2006***Oracle 10g DBA*

- ✓ Oracle 10g Grid and RAC administration. Customized RAC and 10g new features.

**SKILLS**

- ✓ Test-driven object oriented development in C++ (20+ years) and Java (15+ years).
- ✓ Object oriented system design and implementation
- ✓ Design patterns and refactoring.
- ✓ Ruby (10+ years) - test (TDD) and behavior (BDD) driven development
- ✓ Web development - HTML, JavaScript/JQuery, Ruby on Rails (5+ years)
- ✓ 20+ years of C experience.
- ✓ iPhone development and deployment. 5+ years of Objective-C.
- ✓ Source control systems Subversion, Git, Perforce, SCCS, RCS, CVS, StarTeam.
- ✓ Extensive knowledge of UNIX internals - Solaris, Linux, HP-UX, AIX, Mac OS X.
- ✓ Driver development, shell scripting, networking and communication devices, thread programming.
- ✓ SQL. Oracle 8/8i, 9i, 10g, 11g. PostgreSQL, MySQL, SQLite, Informix Online 6.
- ✓ SOA/Web Services - SOAP, XML-RPC, REST.
- ✓ Windows and Visual Studio. Mostly to implement platform dependent layers.

**OPEN SOURCE****Taking active part in the open source community.****2005 - present***Lead developer and administrator on the following projects:*<http://sourceforge.net/projects/tsc-tpm>

Ruby based multi-platform general purpose software packaging and installation facility.  
Ruby application framework with rich utility libraries.

<http://sourceforge.net/projects/tsc-build>

JAM based multi-platform large scale software build facility, integrated with TSC-TPM packaging facility.

<http://sourceforge.net/projects/tsc-act>

Acceptance testing framework that provides ability to perform concurrent full screen automation. Enables TELNET, SSH and IBM-3270 access to VT-compatible and MVS consoles.

*The owner, lead developer and administrator on the following projects:*<http://sourceforge.net/projects/stemkit>

C++ class utility libraries for facilitating quick application development, with support for OS integration, logging, XML/YAML/JSON configuration and many others. SVN hook facility with ability to specify plugins in Ruby for different SVN events (pre-commit, post-commit, etc.)

**PERSONAL**

- ✓ US Citizen.
- ✓ Married, 2 kids
- ✓ References and salary history furnished upon request