

Shivanand Velmurugan

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Overview

Product leader with 18+ years of experience in design and development of software products. A inquisitive problem-solver that drives decisions based on a data-driven first principles approach. Excellent communication, collaboration and organizational skills. Demonstrated success in tackling hard engineering problems and delivering products and solutions that have impact on the organization. Adept in building and working with high-performing engineering teams.

Experience

May 2017 to present - GE Digital, Burnaby, Canada

- Product Manager for two key GE Digital products: Predix Studio and Predix AppEngine.
 - Target markets include GE business verticals of power, mining, aviation and healthcare.
 - Total addressable revenue potential: 100M+
- Drove impactful architectural changes to enabling access to security conscious verticals like healthcare and aviation.
- Instituted data-driven approach to product roadmap definition and planning and shifted to a continuous improvement model of developing products.
- Initiated and drove the adoption of GE security policies reducing number of security issues from 1000+ to 0.
- Channeled engineering teams' focus to improve product quality. Reduced from 3000+ bugs to less than 200 in 1 year.
- Reduced operational cost by streamlining product infrastructure, testing practices and instituting CI/CD. This reduced bug incidence during regression by ~300% YoY.

Jan 2016 to May 2017 - HCL Axon Technologies (for Ericsson Inc.), Burnaby, Canada

Jan 2010 to Dec 2015 - Ericsson Inc., Burnaby, Canada

Aug 2007 to Dec 2009 - Redback Networks, Burnaby, Canada (An Ericsson Company)

As a product owner

- Defined vision, strategy and roadmap for next-gen declarative application development on IPOS product line.
 - Secured executive buy-in and investment in multi-year infrastructure projects.
 - Prioritized and shaped requirements from multiple stakeholders, including: developers, system managers and product sponsors within Ericsson.

- Built and mentored four agile product development teams across multiple sites and time-zones.
- Migrated six applications within three months resulting in
 - Reduced code base by upto 80%.
 - Increased developer productivity by two to three times; and,
 - Improved time to market from months to days.

As an engineer/architect

- Designed and developed Managed Data Infrastructure (MDI). MDI is a set of components for managing schema-based data using a high performance database in carrier-class router operating system.
- Created a meta-data aware, non-transactional cache.
- Created a high-density, low-latency, transactional datastore with record-level locking.
- Shortened development cycle from hours to seconds by redesigning build infrastructure for IPOS platform and components.
- Wrote a custom DSL to provide Object Relationship Mapping (ORM) between two proprietary data-definitions languages.
- Designed common models for IPOS and evangelized Ericsson Common Information Model (ECIM) and its adoption across IPOS features. This included setting standards, establishing a technical council of developers proficient in modeling, training and mentoring them to work with IPOS feature teams.
- Implemented python and javascript apps to demonstrate MDI's abilities as a ecosystem for rapid app development (using SWIG and FFI).
- Replaced CORBA-based legacy fault management implementation with pub-sub.
- Provided support for several networking features in Netop product, including: Dot1q, Bridging, L2/L3 VPN, etc.

Dec 2006 to Jul 2007 - Novell, Bangalore, India

- Developed cross-platform component for boot-time remote view of end-hosts.
- Drove case study for technology support for hardware by multiple vendors.

Nov 2002 to Dec 2006 - HCL Technologies (Cisco Partner), Chennai, India

- Designed and developed a cutting-edge topology display framework in javascript.
- Designed and built a highly scalable system for monitoring traps from access-layer devices to track end-hosts in a network.
- Created a popular client utility to aggregate end-host information.

May 2001 to Oct 2002 - Intec Solutions, Chennai, India

- Created management application for several products used for industrial automation.
- Created components to interact with micro-controllers using MODBUS and CANBUS in ATL COM.
- Implemented standard development processes, including: documentation, version control, static analysis, code-reviews, etc.

Skills

Experienced in product management, architecture and design of high-performance and high-scale industrial software, databases and IP operating systems. Experienced in leading teams to design and build network management solutions. Expert in C and C++, with an emphasis on development in embedded systems.

- Languages : C, C++, Java, Javascript, Python, BASH, Perl, Ruby, Go, Rust, Nimrod, Terra
- Build Tools : CMake, Make, Ninja
- Source Control : Git, CVS, SVN, Mercurial, Clearcase
- Miscellaneous : XML, XSLT, SOAP, XQUERY, SWIG, ANTLR, Flex/Bison, JSON, REST
- N/W tech : NETCONF, RESTCONF, SNMP, L2 and L3 protocols
- Cloud Tech : UAA, Cloudfoundry, several AWS and Azure products

Education

Bachelor of Technology (Electrical And Electronics Engineering)
Pondicherry Engineering College, Pondicherry, India
Graduated in 2001