Mitchell Perilstein

Software Engineer, Sr Technical Consultant at ThingWorx, a PTC Business

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Summary

26 year veteran generalist in software architecture and development, with occasional visits in operating systems, distributed systems, and embedded hardware. Roles have included project management, product management, domestic and offshore team management, and business ownership. Enthusiastic free/open source software advocate, author, and contributor at work and at play.

Evolving interests include distributed web technologies that enable privacy, free speech, democracy and humanity.

Experience

Software Engineer, Sr Technical Consultant at PTC
February 2015 - Present

Member of the architecture / advanced development group within Development working on the ThingWorx IOT platform.

Participated in migration of a Java monolith to a highly scalable, available, distributed, system. This involved repackaging products and dependencies as microservices with docker containers on the DC/OS platform (Mesos/Marathon over AWS ASG). We added additional facilities for monitoring, deployment, service discovery, metrics, queuing (Kafka), persistence (Cassandra/ Postgres/InfluxDB). Implementations involved Golang, Java, and Python. Also contributed to the core business platform as well as its CI/CD workflow and its testing.

Contributed work back to a number of the open source repositories, such as mesos-consul, dropwizard metrics, and DC/OS.

Team Lead, Continuing Software Engineering at TruePosition
February 2010 - July 2014 (4 years 6 months)

Performed software archeology of a minimally documented UTDOA RF based location service product obtained from a corporate acquisition, with minimal input from its principals.   We received around 2TB of assorted C++, Java, Python, etc code, email, business and engineering data to catalog,. From this we reverse engineered and resurrected servers and embedded devices and performed locations. Then we heavily modified the legacy system to productize it, leading to an

internet deployed server, two new embedded platorms, and working prototype system performing locations.

Ported our E-911 product from Solid and TimesTen databases to Postgres with Bucardo replication.

Managed in house and offshore (India) software developers focused on continuing software lifecycle and improving software quality.

Manager, Sustaining Software Engineering at TruePosition
May 2008 - February 2010 (1 year 10 months)

Managed 6 software engineers and 4 network engineers with a mission of maintaining fielded software releases. Interfaced with customers, R&D, doc, and deployment groups. Produced service packs, patches, internal procedures and customer bulletins. Performed administrative tasks such as timesheet approvals and purchase reqs in SAP, budget planning in Cognos, extensive workflow and issue management in ClearQuest, etc. Attended Six Sigma and Lean training from Villanova.

Principal Engineer, Sustaining Software Engineering at TruePosition
March 2008 - May 2008 (3 months)

Sr Engineer, Sustaining Software Engineering at TruePosition
May 2006 - March 2008 (1 year 11 months)

Partner at Ace Technology Group
2004 - 2006 (3 years)

Technical lead in a startup providing outsourced IT departments to small businesses. The extensive use of open source software for workflow and for customer assets allowed a small number of people to maintain a large number of customer desktops, servers, and ISP services. We produced our own Linux distribution and helpdesk software.

Software Engineer at Hitachi Data Systems
March 2000 - September 2002 (2 years 7 months)

Designed a customer API for a proprietary Internet protocol. Implemented server deployment and monitoring of high availability SAN clusters. Helped port the SGI CXFS filesystem to Solaris.

Sr Software Engineer
October 1997 - August 1998 (11 months)

* Generalized packaging, design, and maintenance tasks for end user equivalency and model checking formal verification tools for VHDL, Verilog, EDIF, and .lib.
* Served as the technical liason to our partners Siemens ZT and Interra Corp.
* Implemented a distributed configuration management, build, and testing infrastructure.
* Worked with in-house version of Standard ML

Sr Software Engineer
June 1993 - September 1997 (4 years 4 months)

Maintained the CLSI VHDL parser, object system, discrete event simulator, BDD tools, and other EDA tools. Implemented a Verilog parser from scratch. Participated in the IEEE 1394 standardization committee.

* VFormal/Verilog project. Designed and implemented Verilog analyzer from scratch as frontend processor for formal verification tool. Debugging tasks in FSM compiler.

* VTIP/Verilog project. Repackaged the Cadence OpenHDL Toolkit for resale by porting its object base to VTIP. Administered beta test program, maintained software. Provided technical support and customer training sessions for product and source code sales.

* COMPASS Scout simulation project. Maintenance, packaging, GUI implementation, customer support, source sale packaging and training.

* Wrote X/Motif interface for a high level synthesis product.

* VTIP/VHDL and VTIP-XL/VHDL products. Ported and maintained. Maintained a VHDL test suite.

* Internal Toolbox. Initiated reuse methodology of an internal common library. Implemented an SGML documentation system for it.

* Miscellaneous. Wrote production system for tape and license management. Wrote internal debugging browser for VTIP and Emacs.

Software Engineer
1991 - 1993 (3 years)

Software Engineer at CLSI
1991 - 1993 (3 years)

Education
International Institute for Outsource Management
continuing education, Certified Outsource/Offshore Project Manager, 2010 - 2010
Villanova University
continuing education, Six Sigma Green Belt and Lean Six Sigma, 2009 - 2009
Case Western Reserve University

BS, Computer Engineering, 1984 - 1988
Lower Merion High School
High School, 1980 - 1984

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Linked in

Contact Mitchell on LinkedIn