

SOFTWARE PRODUCT DEVELOPMENT LEADERSHIP

PROFILE

- Highly experienced Software Development Executive with a record of success and profitability leading the design, development, and deployment of new software products in remote, agile, and traditional development environments to meet the needs of industry and government.
- A unique blend of technical savvy, client centric communications and team leadership that makes the most of Software Development by understanding and effectively communicating both the needs of the organization and the objectives of the end user to technicians and C level management.
- A published author, creator of a highly regarded community Web site, and staff lecturer at Boston University on topics ranging from Java and C++ to Data Structures, and Object Oriented Programming.
- A vanguard user of bleeding edge technologies, has built projects over the years upon Python, HTML5, XHTML, XML, CSS, JavaScript, AI, WebSockets, PostgreSQL, PL/SQL, SQL, Pyramid, Twisted, Plone, Zope, C, C++, and the Dojo Toolkit. Proven in Lua, XSLT, Java, Perl, Fortran, Pascal, Awk, Oracle, Inform, RDF, PHP, the ReportLab PDF Toolkit, XUL, Nim, and metadata initiatives including Dublin Core.

EXPERIENCE

ZOLL MEDICAL CORP. Chelmsford, MA

Dec. 2018 - present

Leader in resuscitation technologies.

Software Contractor

Designed, coded, and documented numerous components within the communications subsystem of ZOLL's latest flagship product using technologies like Python 3, Autobahn, JSON, and SQLite. Also pitched in to help older projects use newer versions of Python, DBus, Bluetooth, WebSockets, and others.

Achievements:

- Developed several components from planning phase through to working finished product.
- Worked across teams to integrate software across a complex regulated system.

Spiria, Inc. Boston, MA

Aug. 2017 - Sept. 2018

Contractors specializing in embedded software / Internet of Things.

Senior Director, Development

Iotopia has become the Boston office and IoT center of excellence for Spiria. This position is a continuation of the prior one within the new organization. The work and duties are similar but with more people. Technology being used includes (among others) Python, JavaScript, Twisted, Pyramid, Nim, WebAssembly, Dojo, and PostgreSQL.

Achievements:

- Built a Linux system health monitor for an IoT ecosystem server using Python (Pyramid), PostgreSQL, and JavaScript (Dojo).
- Kicked off a project to provide training both internally and externally, and as part of that effort created course materials for teaching a variety of topics ranging from PostgreSQL to WebAssembly to version control.

Iotopia Solutions, Inc. Boston, MA

March 2016 - Aug. 2017

Contractors specializing in embedded software / Internet of Things.

Principal Partner

ThoughtSynth has merged into Iotopia. This position is a continuation of the prior one within the new organization. The work and duties are largely the same. Technology being used includes (among others) Python, JavaScript, Twisted, Pyramid, Dojo, PostgreSQL, and Lua.

Achievements:

- Retrofitted a telemedicine solution to an ambulatory monitor making use of the cellular network and Internet standards. This system uses Python (Twisted and Autobahn) and JavaScript (Dojo) and is built on my earlier work for the same client.
- Created an embedded system designed to work underwater to passively collect data for marine biologists. This system uses Python (Twisted) plus a variety of special-purpose libraries.

- Created a client-server system making use of QR codes for company customizations in Python (Pyramid), PostgreSQL, and JavaScript (Dojo).

ThoughtSynth, LLC. Saugus, MA

Aug. 2014 - March 2016

Contractors specializing in embedded software / Internet of Things.

Co-Founder

Embedded Web technology and created special-purpose code for companies working on such disparate projects as intelligent farming tractors, invisible pet fences, and spinal surgery gear. Worked with numerous technologies including (among others) Python, JavaScript, Twisted, Dojo, PostgreSQL, and SQLite.

Achievements:

- Created an embedded Web-enabled device to process CAN and GPS data from a tractor and report it out via cellular communications.
- Created an embedded Web-enabled device to pass information from custom radio devices to the Internet via WiFi.
- Created an Internet server that processes binary data reports live from individual customer sites and disseminates processed data for use with mobile apps.

ZOLL MEDICAL CORP. Chelmsford, MA

Feb. 2011 - Aug. 2014

Leader in resuscitation technologies.

Principal Software Engineer / Communications Tech Lead / Software Manager

Led the communications team (a group of 6 engineers and 2 contractors) in the creation of new products based on new (to ZOLL) technologies including Python, JavaScript, Twisted, Dojo, WebSockets, and SQLite while simultaneously maintaining the existing line of products. This effort included increasing the size of the team, hiring both new employees and new contractors, training existing employees (both personally and via arranging for appropriate off-site training), developing new product architecture, and direct coding as necessary.

Achievements:

- Established the use of modern technologies in an extremely conservative environment.
- Grew the team to better meet the new demands brought on by our own successes.
- Improved relationships with other company organizations within both our own and other corporate branches.
- Revitalized military business by rethinking the way ZOLL devices communicate.
- Worked directly with several new partner companies to help promote acceptance of our new technologies.
- Operated across product lines within ZOLL to modernize communications across the boards and ensure compatibility between devices.
- Devised, created, and promoted a Web-based product now being heavily used by the U.S. Navy, on time and below budget.

SITEPEN, INC. Palo Alto, CA

Jan. 2010 - Feb. 2011

A purely virtual software development consultancy and Web technology leader.

Director of Engineering

Led the Engineering Department (and later both the Engineering and Support Departments simultaneously), a geographically diverse staff of around 12 engineers and 3 contractors all reporting remotely during a period of pronounced growth plus expansion into the mobile arena. Worked closely with key contributors of open source projects including Dojo and Persevere and held the careful balance between the requirements of a for-profit company and the open source projects it relies upon. Key customers included IBM, Verizon, NASA, Thompson-Reuters, J.P. Morgan Chase, Cisco, VMware, and Adobe.

Achievements:

- Successfully brought in new talent to replace recent attrition.
- Increased group cohesion in a unique and challenging environment.
- Won the respect of some of the best-known developers in the industry.
- Spearheaded the campaign to create and emphasize training offerings, now a key part of the business.
- Achieved greater unity not just between internal departments, but between SitePen and key members of the FOSS community.
- Increased profitability by both improving estimates and championing new ways of doing business.

SAUGUS.NET, INC., Saugus, MA

Jan. 2009 - Dec. 2009

A software development consultancy, technology leader and community Web site provider.

President

Led this consultancy specializing in Python and JavaScript doing work on systems using different technologies including Zope, Plone, the Dojo Toolkit, Repoze, Twisted Python, PostgreSQL, and Apache.

Achievements:

- Shifted focus further away from Web sites and into Web applications.

PARK PRESS, Saugus, MA

Nov. 2007- Jan. 2009

A distinguished printing company.

Consultant

Completely redesigned the company's corporate database while integrating it with the company's Web site, a dynamic site built around Plone. Fused together several cutting-edge technologies (Zope 3, the Dojo AJAX Toolkit, Python, JavaScript, ReportLab, JSON, XML, XSLT, PL/SQL) to modernize internal workflow and empower customers. Updated technology to enable growth, and brought seasoned stability during a period in which the company literally doubled in size.

Achievements:

- Allowed customers to update their print jobs online without having to pay for new graphics design work by developing a client-side JavaScript / server-side Python application enabling this functionality.
- Created an advanced, dynamic administration Web portal allowing controlled remote updates, even from overseas.
- Completely revamped internal data flow to both ensure data integrity and maximize its usefulness.

RNK COMMUNICATIONS, Dedham, MA

Aug. 2006 - Oct. 2007

A global telecommunications services provider.

Director of Software Development / Chief Architect

Recruited by management after having served the organization in a successful consulting role that demonstrated the necessity for a Chief Architect and Director of Software Development. Guided a staff of 10 Software Engineers in the design and implementation of new products using technologies like Python (Zope, Twisted Python), XHTML, JavaScript, and CSS while contributing to the successful launch of three new products. Drove the original development of the company's first serious source code control system and software unit testing facilities.

Achievements:

- Introduced Object Oriented Methodology in a real time API by using Twisted and Python in the design, implementation and successful launch of a full-featured multi-protocol Web services interface to the company's telephony and e-mail services. Introduced Agile methodologies to the staff as well.
- Sold the concepts of modern software development to both executive management and developers in an overly conservative environment by demonstrating the resulting improvements in efficiency and productivity.
- Demonstrated the need for unit testing by identifying numerous bugs in existing products.

SAUGUS.NET, INC., Saugus, MA

Apr. 1998 - Oct. 2006

A software development consultancy, technology leader and community Web site provider.

President and Founder

Conceived and developed this consultancy providing Zope expertise to clients including Boston.com, Quallaby, and the Town of Saugus. Acted as a team lead and an individual producer in projects using Zope programming in Python. Directed all aspects of the business including Finance, Marketing, Sales and Accounting. Worked through all phases of full life-cycle software development.

Achievements:

- Achieved consensus on key initiatives between disparate groups with varied interests (local government branches, local non-profit organizations and the general public) by successfully liaising between the groups.
- Developed a full Web-based content management system handling input not just from employees but also from local officials and the general public.

- Enabled Boston.com to successfully use Zope having personally used the technology well in advance of the industry in general.
- Organized the production and release of two hardcover books, working with input from more than 120 volunteers. The first has already sold out; the second is well on its way to doing so.

HEWLETT-PACKARD MEDICAL SYSTEMS, Andover, MA

June 1996 - Mar. 1998

A global leader in computing technology.

Software Design Engineer

Wrote extensive C code used in a variety of HP's embedded products, UNIX parsing tools, and intranet applications.

Achievements:

- Eliminated the need for a troublesome, high turn around position by effectively redesigning code.
- Created an entirely new product power measurement system used to ensure the safety of ultrasound devices; promoted its immediate placement into production by dramatically improving an existing system that was erratic and error prone.

SIEMENS MEDICAL SYSTEMS, SIEMENS MEDICAL ELECTRONICS, Danvers, MA June 1990 - June 1996

An international supplier of diagnostic imaging systems, information technology and therapeutic equipment for hospitals, clinics and doctors' offices.

Senior Software Engineer

Rapidly promoted from Computer Programmer to Design Engineer and Software Engineer. Played a critical role in the evaluation of new technologies and the development of C and C++ based product code used in both real-time embedded systems and UNIX systems enabling the operation of numerous medical system products.

Achievements:

- Personally contributed to the development of code shipped into space on the space shuttle and hand carried to the peak of Mt. Everest.
- Served a key role in establishing an intranet in the early days of the Internet.

EARLY CAREER

Early success as a Computer Programmer at A.P.C. Systems Inc and AVCO Research Lab developing scientific and general purpose Unix based programs in Pascal and Fortran. Held secret clearance while writing mathematical programs supporting DOD initiatives

EDUCATION

MS, Artificial Intelligence, Northeastern University, College of Computer Science, Boston, MA

BS, Physics and Mathematics, Northeastern University College of Arts and Sciences, Boston, MA

OF NOTE

Former part time staff lecturer on Java, C++, data structures and Object Oriented Programming at Boston University.

Founder of an acclaimed and internationally renowned Ghost Story Contest (arguably the largest and longest running, and the Google query leader in the category).

Chosen to be the current head organizer of the annual IntroComp interactive fiction contest.

Served in local government in both elected and appointed capacities.

Published author of several technical papers with experience in the patenting process