

David Goldblatt

50 Vine Street

Chestnut Hill, MA 02467

(617) 500-2674

daveg@psyton.com

Summary

Extensive hands-on and leadership experience in systems architecture, design, and development for Smart Grid and communications products. In-depth technical expertise in Smart Grid technologies, operating systems and networking protocols. Exceptional problem solving, communication, and customer skills.

Desire technically challenging position in engineering leadership, product/system architecture, or individual contributor.

Technologies

- Smart Grid - AMI/AMR, outage detection, power quality, PLC/BPL, SCADA, DNP3, IEC 61850
- Linux, Windows, OS X, BSD, vxWorks
- C/C++, Intel, PowerPC, FPGA (Altera Nios)
- TCP/IP, routing and storage protocols

Experience

CTO, Smart Grid, *TDJ Consulting, MA*

2011 – Present

TDJ provides premier consulting and services to engineering organizations in high-growth technology sectors.

Focus is currently on smart grid technologies, including product architecture design and review, software development and scalability, along with integration of third-party technologies.

Other projects include Linux-based 802.11 wireless communication systems.

Co-Founder, Chief Engineer/Architect, *ElectricRoute, MA/NH*

2010 – 2011

Co-founder and Chief Engineer/Architect for a startup in the substation automation space. The product focuses on bringing advanced communication capabilities, monitoring, security, and control to the substation.

Responsible for system architecture, creating hardware and software designs, evaluation of hardware and software elements, participating in fundraising efforts and customer research and outreach. Created documentation, project plans, schedules and budgets.

ElectricRoute was one of five Innovation Award winners (<http://bit.ly/GEInnovationAward>) in the 2010 GE ecomagination Challenge out of approximately 4,000 entries.

Independent Consultant, *Psyton Software, Chestnut Hill, MA*

1998 – Present

Independent consultant performing architecture analysis, business and development plan reviews and software development on Linux and OS X. Most recently focused on smart grid opportunities.

Architect , Ambient Corporation, Newton, MA	2008 – 2009
Vice President, Engineering	2006 – 2008
Director, Engineering	2005 – 2006
Consulting Engineer	2004 – 2005

Lead member of Engineering team, providing technical insight, architectural leadership and investigation of new technologies. Led systems integration efforts to investigate and recommend design solutions to best meet customer needs, product cost and performance requirements.

Conceived, architected, and led hardware and software development efforts for Ambient's Smart Grid communications products through multiple iterations, which have resulted in over 80,000 units ordered from Duke Energy and approximately \$40M in revenue.

Projects included:

- A second-generation Broadband over Powerline (BPL) hardware adapter utilizing a Linux-based host; successfully demonstrated in customer trials.
- Development of a x86-based Linux Smart Grid platform to provide BPL, 802.11 Wi-Fi and cellular (Verizon Wireless EVDO utilizing Novatel and Sierra Wireless) capability; approximately 10,000 units shipped.
- Development of a follow-on PowerPC-based Linux platform to provide further cost reduction and additional flexibility; in volume deployment as part of Duke Energy's 'Utility of the Future' project.
- Advanced development of a FPGA-based Linux platform to provide for dynamic configuration to meet customer needs with further cost reduction.
- Led integration and development of support for third-party AMI solutions, including Echelon, Itron, and Badger Meter along with advanced energy sensing capabilities utilizing Analog Devices energy metering ICs.

Principal technical resource for the company, including mentoring and ownership of critical customer issues. Consistently utilized to solve critical customer issues, from issue resolution to dynamically creating new products to quickly address changing customer requirements.

Initially brought in as sole software engineer, took over responsibility for Engineering and grew staff from 5 to approximately 20 resources. Recruited and managed hardware, software, QA, and network management teams. Supported Customer Service team directly, including in-field support at customer sites. Maintained direct customer relationships and represented company at selected conferences.

Founding Engineer , Charles River Networks, Inc., Boston, MA	2002 – 2003
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Initial engineer for a seed-funded startup developing 802.11 wireless solutions for the carrier space. Defined product requirements, designed product architecture, created development plans and staffing requirements, and analyzed hardware and software solutions and partners.

Developed prototype of a Linux-based access point with both Ethernet and cellular uplinks. Created software architecture for Linux- and vxWorks-based products along with architecture for a wireless backbone connecting access points.

Consulting Engineer , Gotham Networks, Inc., Acton, MA	1999 – 2002
Development Manager	

One of the initial engineers to develop a network processor-based multiservice switching platform. Technical and managerial lead of a 10 engineer group for IP routing and ATM signaling protocols. Participated in architectural specification, design and development, including identifying Agere Systems network processor, selecting PowerPC target platform, Netplane and Phase2 Networks for protocol stacks.

- Managed and participated in program to migrate the ATM and IP capabilities into a carrier-class solution.
- Increased Virtual Circuit setup from 6,000 to 48,000 calls per card, signaling rates to 200 calls per second, reduced memory footprint by 50%, obtained certification by a Tier-1 carrier.
- Ported system from vxWorks to Linux environment, provided cross-functional consultation regarding software design, debugging and testing of software infrastructure.
- Optimized Phase2 IP routing code, simultaneously assisted system services group in integration of other code bases.
- Drove schedules, hired engineers, coordinated SQA and configuration build efforts.
- Boot-strapped simulation environment and routing code on Linux and vxWorks before target hardware available, accelerating development along with conformance and interoperability testing with Cisco devices. Led interoperability effort with Cisco and Juniper products.
- Selected as one of five employees to present company's intellectual property to prospects. Participated in detailed technical briefings and presentations to prospective purchasers.

Principal Engineer, General DataComm, Inc, Marlboro, MA

1995–1998

Project lead for development of an IP switching implementation on the GDC APEX platform. Founding member of the development team.

Boot-strapped operating system on two H/W platforms, developed low-level device drivers, designed and implemented boot ROM, integrated compression methods and file system. Reviewed product definitions, hardware designs, protocol specifications, and software architecture for GDC's next-generation ATM adapter.

Software Developer, NetCentric Corporation, Cambridge, MA

1995

One of the founding employees hired to develop Internet-based distributed fax service. Architected underlying security models used, implemented portions of the project on UNIX and Windows systems.

Sr. Member Technical Staff, Locus Computing, Burlington, MA

1992–1995

Projects included designing the external routing architecture for a clustered computing platform and development of a new version of the customer's BSD-based UNIX system on the MIPS R4000/4400.

Sr. Software Engineer, Clearpoint Research Corp., Hopkinton, MA

1991–1992

Project lead for SCSI-based RAID 5 storage subsystem. Coordinated hardware and software development and integration, compatibility and performance testing.

Diagnostic Engineer, Racal InterLan, Inc., Boxborough, MA

1989–1991

Developed diagnostic software for PC and Macintosh Ethernet network adapters.

Education

Clarkson University, Potsdam, NY

Bachelor of Science, Electrical and Computer Engineering; May, 1989

Patents

US Patent 7,859,378: Housing for inductive coupler for power line communications

Multiple provisionals filed