

Computing veteran of nearly forty years looking to lead in making the world better.

My experience ranges from solo coder to Silicon Valley executive, from bringup on bare metal to Kubernetes and cloud computing, and from low-key mentoring sessions to full-bore crisis management around the world. I'm known for combining exceptional technical expertise and an outstanding breadth of knowledge with excellent communications, mentoring, and problem-solving skills.

Strengths

- Provide leadership and mentoring where needed.
- Communicate effectively in a wide range of situations, to a wide range of audiences.
- Solve problems in complex systems, even while managing crisis situations.
- Adapt readily to new technologies, while retaining what's useful in older technologies.
- Architect, design, and implement robust, high-performance, scalable, secure solutions to complex problems, whether working from a clean sheet or diving into a million lines of existing source.

Technologies

- Extensive experience with:
 - Many programming languages, including Python, Golang, C, C++, JavaScript, Perl, shell, SQL, etc.
 - UNIX development and administration from System III forward, notably including MacOS and Linux
 - Internetworking, including performance, security, and protocol design, using both IPv4 and IPv6
 - Internet messaging
- Familiar with iOS and Android development, hybrid mobile development, LISP, MySQL, PostgreSQL, etc.

Career

Ambassador Labs, Inc. / Datawire, Inc.***2015-2022*****Principal Software Engineer**

- Creator of Emissary-ingress (formerly known as Ambassador API Gateway)
 - Original architect and implementor of Emissary-ingress itself, plus its input language, build system, test system, and release machinery
 - Developed the personas still used to design and communicate about Emissary-ingress
 - Served as the public face of Emissary-ingress, speaking at conferences and interacting with the community
 - Grew the project through three major release versions, and from zero to thousands of installations
 - Helped lead the Emissary team and maintain continuity across management changes and company growth from 5 to 50 people
 - Emissary-ingress is open source at <https://github.com/emissary-ingress/emissary>
- With a coworker, wrote the original Envoy external authentication/authorization filter
 - Design and protocol subsumed into current Envoy ext_authz filter

Prompt.ly, Inc.**2014-2015****Head of Development**

- Led the team creating a cross-platform mobile application for solopreneurs to better manage their businesses. Responsibilities included development of mobile and backend code, managing the development and release pipeline, and keeping the team working smoothly.
- Individually designed, implemented, and supported tools and code as needed, including significant contributions to all areas of the code system and the build system.

Basis Technology Corporation**2011-2014****Principal Software Engineer, Digital Forensics**

- Provided technical leadership for a team creating tools for forensic analysis focused on mobile devices.
- Individually designed, implemented, and supported tools as needed. Examples include:
 - Decryption/extraction of iOS device backups;
 - Forensic analysis of iOS data using a graphical Macintosh application;
 - Reverse engineering dumb phone data; and
 - Cross-platform GUI applications to normalize, manipulate, and compare cell phone data.

iFan Media Corporation**2010-2011****iPhone Development Lead**

- Developed iFan Media's mobile social media application platform, which enabled quickly and easily producing custom-branded iPhone applications from a single code base.
 - Designed and implemented support for audio streaming, realtime chat, interaction with host(s), offers/deals, calendars, service requests, Facebook, Twitter, RSS news feeds, and runtime reconfiguration.
 - Created tooling for automated builds of multiple branded applications from a single source base, from compilation through packaging applications for the Apple App Store.
 - Design and implement runtime configuration, allowing changes to be pushed from iFan Media's servers without client code changes.

Chief Security Officer

- Ensured that iFan's business practices and products adequately protected users' personal information, and that iFan's systems adequately protected themselves from the hostile Internet.

Mirapoint Software, Inc.**2007-2010****Vice President, Field Technical Services****2008-2010**

- Led the Field Technical Services group, comprising technical pre-sales for the Americas and professional services worldwide, responsible for ensuring the success of customer deployments.
 - Improved post-sales supportability of new installations by establishing more consistent guidelines for pre-sales efforts and improving working relations with international divisions.
 - Maintained a 100% success rate for deployments worldwide.

Member of Technical Staff**2007-2008**

- Led Mirapoint's Release Engineering group, with responsibility for releases, source code control system (Perforce), and engineering build tooling, including substantial tools development efforts.

Mirapoint, Inc.**1999-2007****Member of Technical Staff**

- Mentored and led a group of junior engineers in India, forming them into a functioning engineering team.
- Contributed significant functionality and performance improvements to all the infrastructure components of Mirapoint's Messaging Operating System (MOS), especially the email transport system, including:
 - Created a new bootloader to support new hardware;
 - Designed and implemented IMAP folder sharing across multiple message stores;
 - Designed and implemented Mirapoint's SSL support, used everywhere in the system.

Cendant Internet Engineering**1996-1999****Systems Programmer / Managing Architect**

- Led the Core Development group, responsible for the infrastructure supporting Cendant's e-commerce platform.
- Designed and led the implementation of the core middleware engine that mediated access from Cendant's web applications, supporting upgrades and rollbacks with zero downtime under full production load.

Teradyne, Inc.**1993-1996****Design Engineer**

- Contributed significant functionality to the infrastructure components of Teradyne's automated test systems. Examples include:
 - Designed and implemented changes to allow the tester to take full advantage of multiple CPUs for DSP while retaining binary compatibility with earlier versions (patented).
 - Designed and implemented RPC mechanisms to allow the tester to be controlled by an external system.
 - Designed and implemented a multithreaded database search engine supporting regular expressions, Boolean operations, and multiple output formats.

First Albany Corporation**1988-1991****Systems Analyst**

- Designed and implemented a full-screen menu-driven interface to make UNIX systems accessible to financial traders.

Digitech Communications, Inc.**1983-1987****Software Engineer**

- Designed and implemented a partial PL/1 compiler to take over the function of broken hardware in the company's revenue stream.
- Designed and implemented a full-screen telephone billing data editor used to prepare telephony systems for delivery to customers.

Education

BS Computer & Systems Engineering, Rensselaer Polytechnic Institute, 1993

References available upon request.