

Dynamic leader who embraces multiple technology roles to deliver complex systems. Leads with a “startup” point of view and energy. Has directed large programs (40+ participants, 20+ business and tech groups) to develop systems for Forex, Fixed-Income and Equities. Responsible for full scope of software development, customer engagement and product delivery. Sets direction, organizes teams, engages stakeholders, identifies and eliminates obstacles and resolves problems. Manages staff, vendors and budget. “Hands-on” when needed.

Roles & Skills Consultant • “Tech Enabler” • Entrepreneur • Researcher • Program & Project Manager • Software Engineer • Business & System Analyst • VP of Development • Product Development • Architecture • Modeling • Design • Analysis

Business Equities • Equity Derivatives • Fixed Income • Fixed-Income Analysis • Forex • Trading • Market Data • Software Litigation • Learning Management Systems

Technology SWIFT • FIX • Splunk • Machine Learning (Fastai, Keras) • Fixed-Income and Derivative Analysis • Blockchain • Python • PERL • Java • C ... *full list on last page*

2018–present — Research for Machine-Learning based Mobile Apps

Independent research and prototyping for meal recognition and diet assessment apps on mobile devices using Fastai (Pytorch), CoreML, Keras, iOS, XCode, Python and Swift.

2014–2017 — Fidelity, Equity Systems - Program Manager, Consultant and Analyst

Took on multiple roles for LUMINEX (<http://luminextrading.com/>), a \$30M, 50+ participant, 3+ year project to create an advanced block trading exchange for buy-side firms. Coordinated program-wide application development. Expedited delivery by kick-starting cross-team development, proactively identifying, analyzing and solving end-to-end integration issues, fostering inter-team communication and working closely with compliance, information security, finance and business stakeholders.

2010–2013 — Fidelity, Forex Systems - Development and Program Manager

Added \$5M to Fidelity revenue by reviving, re-architecting and delivering cross-company integration of Stock Plan Services with Capital Markets Forex. Coordinated efforts and managed budget for over 20 technology groups. *This project was awarded a CIO “High Five.”*

Replaced primary Forex trading platform with TwoFour, with no disruption to business operations. Engineered and coordinated stakeholder integrations for over a dozen technology and business groups. Coordinated with vendors. Forex Development received a rare “clean” audit — audit found no issues for Forex technology projects.

Led subsequent upgrades, and application and stakeholder integrations. Principal liaison with stakeholders and business. Trained development team. Diagnosed and remediated significant vendor misconfigurations. Designed and built automated test environment for SWIFT FX payments.

2007, 2009 — Fidelity, Fixed Income Systems - Program and Project Manager

Directed development for the Bond Analytics Tool, an application that integrated Fixed-Income market data, Analytics, Portfolio Generation and Order Entry for use by Fidelity Fixed-Income Specialists. Project was designated a Fidelity “Super-Six” project by the Chairman.

2008–2010 — Educators Publishing Service, Consultant to CIO

Evaluation of Learning Management Systems, SCORM and SIF. Requirements Analysis, RFP and Vendor evaluations. Tech: Moodle, Sakai, Blackboard, SCORM, SIF, FLASH/FLEX, ColdFusion.

2000–2006 — MCS Associates, Equity & Options Trading, Application Development

Invested and traded for my own account; short-term trading using equity option strategies. Researched and prototyped short-term price forecasting models. Developed Excel-framed option analysis programs using PERL, JavaScript, Java (NetBeans IDE) and Visual Basic.

2003–2004 — LeBoeuf, Lamb, Greene & MacRae LLP, Technology Expert for ERP Litigation

Non-testifying expert for major ERP software litigation; reported to Senior Partner. Discovered that defendant was withholding key emails and documents. Prepared, advised and supported attorneys for depositions. Briefed senior partners on technology. Drafted technical sections of legal documents. Prepared analysis and presentations for clients. Reviewed, evaluated and managed disposition of technical discovery documents. Consulted for 12 months; Tech: ERP, ISO9001, SDLC

Harvard, CERN, Citicorp, etc. — Earlier Engagements

Harvard — B.A. Physics. Part of a two-man team to implement ECL (similar to Algol). Varsity Crew.

CERN (European Organization for Nuclear Research), Software Mentor — Analysis, design and product evaluation for CORTEX, a real-time control system architecture for high-energy particle detectors. Mentored staff in analysis and software application design techniques.

InTouch Systems (Startup), Program & Vendor Management — Program manager for the implementation of InTouch's voice-recognition agent ("InFlexion"). Became core of Sprint PCS's "Voice Command." Reported to President.

Bell Atlantic Yellow Pages, Consultant to CIO — Project and vendor management, systems integration, analysis, design and development. Projects: Yellow Pages web site "Big Yellow," directory services for Europe and China. Managed developers from MCS Associates, Bell Atlantic and vendors.

MCS Associates, Bond Analyzer Product Development (Startup) — Designed and implemented financial analysis applications for the Apple Newton, including proprietary algorithms to enable real-time fixed-income calculation algorithms including PIK, STEP, and Reset bonds.

Citicorp Global Treasury Services, VP, Director of European Development — Responsible for multiple European projects, five direct and 25 indirect staff in three countries. Directed MIDAS trading system project. Delivered on time and on budget. Based in London, Frankfurt and Geneva.

Applications, Tools, Etc.

As Manager	Luminex • Two-Four • Bloomberg TOMS • Lightstreamer • FIX • KDB • Oracle • SQL-Server • Tomcat • Siteminder • TIBCO • MQ • Blackboard
As Mgr. and Developer	SWIFT (network) • Splunk • Moodle • Linux • Windows Server Analysis
Significant Development Experience or Familiarity	C • Python • PERL • PHP • Fixed-Income and Equity Derivative calculations • NewtonScript • CAKE • PASCAL • LISP • Assembler
Modest Development Experience or Familiarity	PyTorch • CoreML • XCode • Swift (language) • Blockchain • Bootstrap • jQuery • TCP-IP • Java • JavaScript • UML • Agile • KDB • AppleScript • SQL
Power User	Excel • Word • Project • Visio • PowerPoint • MS-Office • SharePoint • Access • OmniGraffle • Jira • UNIX • MacOS • Windows
Other	B.A. Physics, Harvard • Worked in London, Brussels, San Juan, Frankfurt and Geneva • Basic conversational German • Enjoy Skiing, Hiking, Stadium Running