

Senior technology leader whose passion is software development and making things work. Extensive experience providing vision, leadership, planning, and implementation for significant global initiatives. Proven track record of success creating and developing new client facing products and financial services experience; building effective software development teams; and partnering with stakeholders across matrixed organizations.

Focus on client facing systems including: transactional, data processing and analytics, core architecture, and web.

Professional Experience

Ab Initio Software (January 2019 – Present) | Boston, MA

Solutions Architect / CTO On Demand

Strategic transaction and data processing guidance tailored to customer's needs. Architect and implement overall system design and delivery for customers. Responsible for full project life cycle from project inception (business case, examining existing systems, desired outcome), architecture, proof-of-concept, through production deployment.

Manage and lead multiple teams consisting of customer domain experts and technologists to ensure successful delivery and maintainability. Accomplishments include:

- Generative AI for business rule to code transformation
- ETL framework for processing thousands of vendor data feeds with datasets containing millions of customers
- Achieving performance, data access, and reliability via distributed computation, facades to data stores, queues
- Scaling compute resources via data partitioning or data pipelining based on performance analysis
- Replacement of legacy systems that require extensive manual operation and costly maintenance
- Implementing self-service capabilities where non-developers can make software changes
- Using the Ab Initio software stack on AWS for large scale processing (big data, SQL, analytics)

We Are Destico (October 2018 – November 2020) | New York, NY

Chief Technology Officer

Provide CTO consulting expertise to partners.

Axonix (July 2017 – August 2018) | New York, NY

Director of Blockchain Applications

Plan, direct, and execute private blockchain solutions with the responsibility for client implementation success. Built and mentored a start-up software engineering team of 45 (from 5), instilled enterprise level software development practices to ensure long-term client success and software scalability. Accomplishments include:

- People & team management: performance reviews, career development, compensation, project and organizational structure, talent management
- Strategic planning, architecture of client applications and enterprise solutions
- Delivering distributed ledger and blockchain applications leveraging a number of technologies: **AWS, Solidity, Python, React, Node.JS**
- Functional QA testing, release management, security, performance, technology operations
- Understanding of client requirements and client relationship management

Goldman Sachs, Equities Technology (November 2014 – July 2017) | New York, NY

Vice President, Global Head of Equities Electronic Trading Technology

Responsible for all Equities client connectivity and Americas sales technology, with a global team of 60 engineers.

Directed technical teams to re-engineer the connectivity and trading stack, consolidate client preference systems, streamline release processes, and create innovative sales intelligence platforms. The initiative balanced scale, speed, reliability, and security to support \$7B in annual equities revenue. Notable accomplishments include:

- Reduced **FIX** message latency from 2–5ms to 0.3ms via C++ optimization, stack re-engineering, process consolidation, and virtual IP address (**VIP**) -based routing.
- Unified 12 client preference systems into one, enabling >300 client changes per month with workflow, audit history, and regression testing. Doubled client change throughput while improving stability and time-to-market.
- Compressed release cycle from 12+ weeks to 2 weeks through standardized upgrades, reduced version sprawl, instituting a “forced” upgrade cycle, and auto-generated regression suites.
- Improving performance SLAs by comparing observed peak vs. theoretical message rates, monitoring, and elimination of unnecessary messaging. Increased security by implementing environment separation controls.
- Earned federal R&D tax credit for architectural innovation.

Responsible for identifying opportunities to improve sales team effectiveness by conceiving of and developing new sales tools that generate ROI. Achievements include:

- Developed proprietary sales lead generation system (**React, Elasticsearch, Java, Node.js**) leveraging trades, market data, positions, and client interactions.
- Built GSMaps, a secure full-stack Geographic Information System (**GIS, geocoding, map rendering**) solution based on OpenStreetMap with heat mapping and route optimization, protecting sensitive client data.

Bank of America Merrill Lynch, Prime Brokerage (PB) (July 2012 – November 2014) | New York, NY **Director, Global Head of Prime Brokerage Client Applications**

Responsible for all client facing transactional, extranet portal, and metrics applications. Led a team of 45 people; managed a \$18MM annual development and quality assurance budget; partnered with client-facing business teams to develop commercially effective solutions; and led development teams to establish system architectures, business and technical best practices, and process efficiencies to reduce overhead. Notable accomplishments included:

- Scaled trade processing from 20K trades / hour to 5MM trades / hour via **Java** process consolidation, in-memory **Java Message Service (JMS)**, and optimized **Oracle SQL** transactions with **Scala** to monitor performance.
- Improved SDLC by automating enforcement of best practices across Prime Brokerage for ~4000 changes / year via **JIRA** workflows, **Confluence**, and **Maven** builds. Introduced coverage testing via **JUnit** and **Mockito**.
- Automated ETF redemptions and elimination of manual operations processes using **.NET** and **Web services**, 80% of ETFs automated in 2014.
- Improved client performance experience by introducing a **Content Delivery Network (CDN)** specifically **Akamai**.
- Consolidation of money wires client setup from 5 systems to 1, 25% shift of payments from manual to electronic.
- Engineered the technical and functional transformation of Prime Brokerage’s legacy client portal to a redesigned responsive dashboard using **HTML 5**, **JSON**, and **AngularJS** with a **Liferay** portal container.

Goldman Sachs, Vice President (May 1999 – June 2012) | New York, NY

Goldman Sachs, Fixed Income Currency and Commodities Technology (2008 to 2012) **Chief Information Security Officer - FICC Technology**

Directed the adoption of technology controls to manage and reduce technology risk for Goldman Sachs’ transition to, and standing as, a bank holding company. Responsibilities included acting in a leadership role, with accountability directly to the CTO of FICC and firmwide risk committee, providing oversight and strategy for the implementation of incident management, business continuity planning, end-of-life management, and adoption of software development life-cycle controls across a development organization of 600+ technologists and 4000+ servers. Notable accomplishments included:

- Design and strategy for automated build process across 700+ developers and 10MM lines of code.
- Created Core API to enable real-time system monitoring used across front office desks.
- Developed metrics application to enable trading support teams to understand their operational risks.
- Standardization and evangelization of technology best practices across all FICC Technology front office teams.

- Definition and implementation of FICC's global change management, build, and software deployment practice.
- Oversight, planning and execution of a \$10MM annual hardware capital budget.
- Created process (metrics/tracking) to manage hardware life-cycle for all hosts (~3000) supporting FICC Trading.

Goldman Sachs, Global Investment Research Technology (2002 to 2008)

Chief Technology Officer – Global Investment Research Technology

Co-headed a global 80-person development team and delivered technology solutions to the Investment Research business. Responsibilities included acting as a thought leader to provide project oversight, engineering, and strategic direction, while working in partnership with global business leaders; executing an innovative, scalable strategy to support long-term growth; evolving the research technology platform to achieve commercial goals. The primary objective of the team was to completely replace the legacy technology platform used by Investment Research. Initiatives included:

- Replacement of, over a three-year period, many legacy disparate regionally focused systems with a global platform.
- Design, development and release of innovative authoring, analysis, publishing platform, and workflow engine, leveraging leading-edge technologies, to facilitate the interaction of research analysts, content management, clearance, and distribution. Technologies utilized: **Java, SQL, SOAP, WebDAV, Sybase, XHTML, XPDL**.
- Implementation of a document management system supporting multi-language documents (English, Japanese, Chinese), multi-branding, and multi-format (PDF, XML, HTML, Text).
- Revamp of the research analyst experience used to author and perform analysis, to directly integrate with existing desktop workflow and tools, with adoption of **XML, XSLT**, and **HTTP** technologies.
- Publishing data from research analyst models (created in Excel) into relational and non-relational databases to enable new business and macro financial analysis within research sectors and industries.
- Creation of new global distribution capabilities including: an analyst blog, multimedia-based morning call, “trusted links” whereby clients could read and share research without logging into a website, and mobile device access.
- Awarded federal R&D tax credit based on new technologies in the architecture of authoring and publishing platform.

Goldman Sachs, GS.com / Private Wealth Management (1999 to 2002) - Vice President, Lead Developer

JJ Kenny Standard and Poor’s (February 1999 to May 1999) – Consultant | New York, NY

Pencom Web Works (March 1998 to February 1999) - Senior Consulting Developer | New York, NY

Calvex International Inc. (March 1997 to March 1998) - Lead Developer | Vancouver, BC

Education

Bachelor of Science, Management and Systems Science, 1997. Simon Fraser University - Vancouver, Canada

Multi-disciplinary degree with courses spanning: Business, Computer Science, Economics, and Mathematics. GPA 4.15/4.33. Received Dean’s Medal of Science 1997.

Interests / Organizations

- Current technical interests: React + Expo, Stable Diffusion
- Nationally certified Porsche high performance driving instructor, club racer (PCA, SCCA, NASA)
- New Hope Eagle Fire Department: Firefighter, Board Member, Treasurer
- Previous member of NYC First Planning Committee and event volunteer