

OBJECTIVE: Engage with businesses that seek to exploit Big Data & Analytics for innovation purposes; by leveraging the full-spectrum of multi-dimensional and diverse skills I've accumulated over a super-active 20+ years career. [**Direct Account reps. or Hiring Personnel only.**]

Complete, unabridged *legacy* CV found here: <http://www.vitae.wiki>

Current Business: <http://www.prismalytics.com>

Strengths/Diversity

*Big Data & Analytics Business Strategy & Architecture | Innovation, Vision & Thought Leadership
Start-Ups | Team Direction, Motivation & Education | Cross-Functional Collaboration | Enterprise Level
Management | Hands-On Big Data when Necessary*

CURRENT :: *SELECT HIGHLIGHTS*

- **Presiding over PRISMALYTICS, LLC. (www.prismalytics.io),** a big data & analytics consultancy and related ventures.
- **Implemented a Big Data Recommender engine for Merrill Lynch's research publication line-of-business;** employed Hadoop HDFS and the Mahout library to implement Item-Similarity (co-occurrence matrices), k-Means and k-NN clustering machine learning algorithms. The engine provided a 'You may also like' article recommendations experience to wealth clients browsing an exclusive portable, thus monetizing their article publications portfolio.
- **Designed and Implemented a real-time Big Data analytics platform for Bank of America's trade monitoring, alarming and reporting business functions.** The first incarnation employed Apache Storm, Cassandra, Zookeeper and Redis. Among the Risk & Compliance use-cases enabled by this platform were *wash-sale* identification; order to execution *latency monitoring*; account limit *threshold breaches*; and more.

LEGACY :: *SELECT HIGHLIGHTS*

- **Designed and built New York Mercantile Exchange's local and distance DWDM Storage Area Network,** providing synchronous, real-time replication of all commodities/futures trading activity. Using application and storage-level *cluster-and-stream* designs, both within and across DWDM Fiber connected data centers, this became NYMEX's post 9/11 Business Continuation & Disaster Recovery platform.
- **Led New York Mercantile Exchange's cross-state data center migration;** inventoried trade applications & platforms to be migrated; developed dependency-based logistics plan for phased transfer of business services, including contingency fail-back plans; negotiated the engagement terms, insurances and pricing with unionized cabling, electrical, and move-related vendors; oversaw laborers to seamlessly execute project; performed environmental and capacity assessments on candidate DR data centers (e.g. servicing electric company outage history, raised floor tolerance, seismic activity, cooling capacity, etc.); .
- **Co-Designed and implemented Cablevision Inc's. inaugural Video-On-Demand** (aka. Optimum iO) systems infrastructure and services (a technical role); subsequently worked on strategic roll-out plan which aligned the new product offering with aggressive growth and market expansion in the New York tri-state area (a business-enablement role).
- **Co-Implemented the core INET/Reuters (now NASDAQ's) Electronic Communications Network (ECN) systems infrastructure** through which global financial institutions and traders connect to buy/sell equities (a.k.a. The NASDAQ stock exchange). Collaborated with senior management to facilitate disaster recovery site selection and data center migration, post INET/Reuters merger with NASDAQ. Consolidated information, assets and strategy from both organizations as part of designing the DR site in Virginia.
- **Led full-lifecycle of projects valued between \$2 and \$10 million at SUN Microsystems;** partnered with clients, gathered functional requirements, designed customized platforms, and implemented (then) Sun Microsystems solutions.

SELECT ENGAGEMENT SUMMARIES

PRISMALYTICS, LLC. (Formerly *RENSELAER TECHNOLOGY GROUP, LTD* - est. 1997), NYC, NY)

BANK OF AMERICA, New York, NY - **Big Data Architectures**

Designed and Implemented a real-time Big Data analytics platform for Bank of America's trade monitoring, alarming and reporting business functions. The first incarnation employed Apache Storm, Cassandra, Zookeeper and Redis. Among the use-cases enabled by this platform were wash-sale identification; order to execution latency monitoring; account limit threshold breaches; and more.

MERRILL LYNCH, New York, NY - **Big Data Architectures**

Designed and Implemented a real-time Big Data analytics platform for Bank of America's trade monitoring, alarming and reporting business functions. The first incarnation employed Apache Storm, Cassandra, Zookeeper and Redis. Among the use-cases enabled by this platform were wash-sale identification; order to execution latency monitoring; account limit threshold breaches; and more.

CITY of NEW YORK, New York, NY - **Senior Systems Engineer**

Created a Sun/EMC/Veritas based compute and storage infrastructure for The City of New York's web-based employee time tracking system that streamlined and standardized employee hourly wage tracking across all municipal agencies; allowing the city to better record employee time, as well as forecast operational budgets.

INET (REUTERS) / NASDAQ, New York, NY - **Senior Systems Engineer**

Co-implemented a high-speed UDP broadcast based Electronic Communications Network (ECN) that facilitated trading for large global financial institutions; the engine matched 60-70 billion trades daily. Led a four person team that maintained ECN network, servers, and embedded Linux and JRE based software. Analyzed system and network protocol performance; wrote a C program to manage ECN node states. Directed the migration of the platform post INET merger with NASDAQ; ensured a seamless transition.

THE NEW YORK MERCANTILE EXCHANGE, New York, NY - **Lead BC/DR/HA Platform Architect**

Developed a HA and DR replication strategy for New York Mercantile Exchange data; relocated and repurposed unused Hitachi HSD enterprise storage systems at primary and disaster recovery sites, established fibre optic DWDM connectivity to synchronize enterprise critical data via TrueCopy™; clustered servers to ensure business continuity; planned data center migration, adopted risks controls. Reviewed and restructured or terminated unnecessarily burdensome vendor contracts, which fostered effective budgeting.

MAIL.COM, New York, NY - **Lead Senior Infrastructure Design Engineer**

Designed, built, and administered Sun/Solaris, Veritas, and EMC-based SAN for personal & corporate email, calendaring, and media content site. Implemented the Resonate based load balancers. Created a replication strategy for disaster recovery risk management; partnered with vendors to define project scope based on business requirements and managed development.

CHASE MANHATTAN BANK, New York, NY - **Senior Systems Engineer**

Created global Sun Solaris solutions for Chase Manhattan Bank. Designed, tested, and built disaster recovery platform for Chase Private Key Infrastructure. Customized and maintained the standard Solaris O/S build used for Sun servers across the bank globally.

SUN MICROSYSTEMS, New York, NY - **Senior Consulting Architect for their NYC/Tri-State Clients**

Consultant to SUN Tier-1 enterprise client accounts, providing guidance, design, architecture and integration services of SUN-based compute and storage business solutions; engaged in accounts spanning all verticals. Often served as SME during the sales process. Was SUN's consulting arm lead for NYC and surrounding areas. Instructor at Sun Education.

SELECT LEGACY ENGAGEMENT SUMMARIES

SUMITOMO BANK LTD, New York, NY - Trading Floor Systems Designer

Design, relocation, installation of a 70-position trading floor, including Sun, UNIX, trading platforms, facilities cabling, and network maintenance. Supported Dow Jones Telerate, Reuters/RSF+, Knight Ridder, and Teknekron MarketSheet products. Co-designed Teknekron TIB router system that automated internal communication.

SARNOFF RESEARCH (GE/RCA) LABS, Princeton NJ - DSP Hardware & Firmware Electrical Engineer

Design team member that built DSP hardware boards that originated DirectTV satellite Television capabilities.

GE AEROSPACE, Syracuse, NY - Communications Electrical Engineer

Military-grade design, develop and test of Motorola 68030-based Assembler & C software for I/O protocols in the NAVY sponsored *Seawolf* Submarine defense project. This provided the communication link between externally located submarine listening devices and it's higher level operating systems. Secret Clearance.

ACADEMIC BACKGROUND

BOSTON UNIVERSITY, Boston, MA

Master of Science in both Electrical & Computer Engineering (dual masters).

RENSSELAER POLYTECHNIC INSTITUTE (RPI), Troy, NY

Bachelor of Science in Electrical Engineering

RENSSELAER TECHNOLOGY GROUP, LTD, New York, NY

Founded and successfully grew this Enterprise I.T. consultancy since, 1997

PRISMALYTICS, LLC, New York, NY

Founder and president (current).

PROFICIENCIES

Big Data & Analytics platform based Business development, enablement and innovation:

NoSQL: HBase; Cassandra; MongoDB; Redis; Neo4j

Parallel Processing & C.E.P.: Apache Storm; Apache Spark, HDFS, Hadoop Map/Reduce

Data Logistics / E.T.L.: Kafka, Flume

Languages: Core Java; Core Python; PIG Latin; Trident; Spark Streaming