Noelle Milton Vega
BUSINESS-STRATEGIC DATA, ANALYTICS & GOVERNANCE ARCHITECT
Email: nmvega@pivotmath.app | **Portfolio**: https://jupyter.ai
LinkedIn: https://LinkedIn.Com/in/nmvega (not up-to-date)

SUMMARY COVER

Formal education: Master's in Electrical & Computer Engineering from Boston University**;** and Bachelor's in Electrical Engineering from Rensselaer Polytechnic Institute (RPI). A distinguishing feature of my career are cross-vertical successes as principal-architect, engineer and strategic advisor to Fortune-500's biggest brands, on high-value enterprise-critical projects. Select output from this body-of-work are chronicled at my portfolio-site, including real-world architectures, whitepapers, letters-of-commendation, certifications, diagrams and more: https://jupyter.ai

OBJECTIVE

Via full-cycle leadership roles, engage organizations to implement, improve or transform data architectures, strategies and governance for sustained business advantage.

EDUCATION

- **Boston University (BU)** -- M.S. Electrical & Computer Engineering (Boston, Massachusetts)
- **Rensselaer Polytechnic Institute (RPI)** -- B.S. Electrical Engineering (Troy, New York)
- **George Westinghouse High School** -- High School Valedictorian (Brooklyn, N.Y.)

INDUSTRY VERTICALS

- Pharmaceuticals
- Financial Services
- Stock & Commodities Exchanges
- Telecommunications
- Cable, Media & Entertainment
- Defense and R&D Laboratories

BODY-OF-WORK PORTFOLIO SAMPLES

- https://about.pivotmath.app :: PivotMath Platform – Guided math practice for Middle Schoolers. Video
- https://jupyter.ai **::** Portfolio Website Landing Page
- https://jupyter.ai/RndLab **::** R&D Sandbox with servers and full-stack technologies to prototype customer solutions
- https://jupyter.ai/deloitte **::** Full-Cycle Letter-of-Commendation from **Deloitte** for a Mission Critical Engagement
- https://jupyter.ai/bofa **::** Architecture for a Realtime Trade-Anomaly-Analytics CEP Platform for **Bank of America**
- https://jupyter.ai/nymex **::** Multi-Datacenter SAN for Realtime BC/DR for **The New York Mercantile Exchange**
- https://jupyter.ai/netapp **::** Monitoring & Alerting Product Developed for **Network Appliance** (**NetApp**)
- https://jupyter.ai/ubs **::** In-Memory Reference Data MDM Lookup System for **United Bank of Switzerland** (**UBS**)
- https://jupyter.ai/data-pipeline **::** Full-Stack Data Pipeline prototype for a client with Hive, Spark & Kafka

CERTIFICATION LINKS

- Coursera: Neural Networks & Deep Learning | Andrew Ng
- Coursera: Improving Deep Neural Networks: Hyperparameters, Regularization & Optimization | Andrew Ng
- Coursera: Structuring Machine Learning Projects | Andrew Ng
- Amazon Web Services (AWS): Certified Solutions Architect – Associate (CSA-A)
- Amazon Web Services (AWS): Certified Developer -- Associate (CD-A)
- Minority Owned Business Enterprise Certifications - (City of NY; State of NY NMSDC)

VERLIABS

Invented Verilabs -- https://verilabs.io -- an online SaaS platform that provides technology sandboxes for solutions-prototyping of Data Architectures on limitless technology stacks. Sandboxes (Docker containers) are equipped with nested-containers that provide Spark, Confluent Platform (i.e. Kafka stack), Postgres, MongoDB, Cassandra, Redis, HDFS, Hive, Fedora O/S instances and other enterprise technologies. It is a modern descendant of my personal R&D Lab -- https://jupyter.ai/RnDLab -- which I built in 2012 to accelerate prototyping of a Big Data Analytics solution for Bank of America. I use this R&D Lab to assist with subsequent engagements.

DATA ARCHITECTURE TECHNOLOGIES: TOOLS, PLATFORMS (USED or DESIGNED WITH OVER TIME)

LXC CONTAINERS • DOCKER • PODMAN • JUPYTERLAB • JUPYTERHUB • VISUAL STUDIO CODE • SPARK (DATAFRAMES | SPARK SQL | SPARK STREAMING) • AZURE DATABRICKS • CONFLUENT PLATFORM • GITLAB • PYTHON 3 • CORE JAVA • UNIX BASH & CLI • BUSINESS CONTINUITY & DISASTER RECOVERY • HADOOP ECOSYSTEMS • COMPLEX EVENT PROCESSING • ELT • NOSQL • MULTI-SITE FIBRE-CHANNEL SANs • AWS CLOUD • MONGODB • C* • REDIS • APACHE STORM • SCIKIT-LEARN | TENSORFLOW

Noelle Milton Vega
BUSINESS-STRATEGIC DATA, ANALYTICS & GOVERNANCE ARCHITECT
Email: nmvega@pivotmath.app | **Portfolio**: https://jupyter.ai
LinkedIn: https://LinkedIn.Com/in/nmvega (not up-to-date)

EXPERIENCES

PIVOTMATH, LLC (formerly PRISMALYTICS, LLC) – CONSULTANCY
1998 – PRESENT

Consultancy focused enabling business-critical technology platforms and architectures. Except where noted, engagements below were performed via PRISMALYTICS / PIVOTMATH, LLC. PRISMALYTICS / PIVOTMATH, LLC also found, owns, develops and operates the **PivotMath Platform** (https://about.pivotmath.app).

TIAA BANK | TIAA FINANCIAL SERVICES | TIAA CORPORATE – DIGITAL TRANSFORMATION ARCHITECT
JANUARY 2023 – PRESENT (CONSULTANT)

Led the dual-phase project that transitioned an enterprise-critical function from a spreadsheet (paper) driven process to an online platform that enabled collaborative projects, workflows, tasks, approvals, messaging, custom forms, lineage tracking and other transformative benefits. Phase-1 (assessment) involved gathering and using business requirements, functional requirements and business dataflows to identify candidate solutions; authoring user-stories deployed during POCs; and selecting a solution based on multi-dimensional requirements met – technical, functional, cost, time-to-benefit, usability, low-code / no-code, and more. Phase-2 (implementation) involved working hand-in-glove with the vendor (Adobe) to master & implement Adobe Workfront; to deploy the business user-stories on it; to document end-to-end processes; and to train and transition business-users from managing this enterprise-critical function on spreadsheet to Workfront collaborative projects.

ZETTALABS, INC – DIRECTOR, PRODUCT DATA ARCHITECTURE & PLATFORMS
NOVEMBER 2019 – SEPTEMBER 2022 (3RD PARTY CONSULTANT)

The flagship product of ZettaLabs is **ZettaSense**, a suite of tools that includes Z/S **Ingest** (data logistics), Z/S **Classify** (discovery & classification of raw data into business data-domains) and Z/S **Resolve** (mastering, merging and deduplication of data). Involved in three distinct roles in support of Z/S: **(1)** Designing cloud data-architectures and platforms that Z/S is deployed on; **(2)** Provide professional services integration for customers of Z/S; and **(3)** Perform PySpark and Kafka development used by various Z/S stack components. As ZettaLabs is a small, niche company focused on Financial Services and Pharma, it is necessary to regularly pivot between these distinct roles.

SCOTIABANK (BANK OF NOVA SCOTIA) – DIRECTOR DATA ANALYTICS, STANDARDS & PRACTICES
APRIL 2019 – OCTOBER 2019 (3RD PARTY CONSULTANT)

Reporting directly to the global Chief Data Officer (within the Data Governance Office), direct a team that works on a Hadoop Datalake platform dedicated to data governance initiatives. The platform provides single-source-oftruth consumption repositories for Customer and Transaction data originating across bank LOBs. Through 'userstories', LOB data is coalesced, mastered, merged and quality-monitored. Technologies include: Cloudera Hadoop Data Lake; Database CDC with Attunity/Qlik Replicate & Compose; Sqoop; Apache Kafka for data-logistics (including database CDC) and Datalake ingest; PySpark / Python-3 (and Python libraries) atop Spark 2.x for Batch and Streaming analytics; HiveQL; SparkSQL; Jupyter Notebook and more. The end-to-end work bears similarity to the R&D Lab tutorial / example I published here**:** https://jupyter.ai/data-pipeline

BRITISH TELECOM – DATA STREAMING AND ANALYTICS
JUNE 2018 – MARCH 2019 (3RD PARTY CONSULTANT)

A restrictive NDA and project sensitivity prevent divulging business-level detail; however, I lead a project as well as wrote Python 3.x code to drive a Kafka 2.x, Spark 2.x, Spark MLib and MongoDB 4.x real-time analytics stack to identify correlations between transactions.

Noelle Milton Vega
BUSINESS-STRATEGIC DATA, ANALYTICS & GOVERNANCE ARCHITECT
Email: nmvega@pivotmath.app | **Portfolio**: https://jupyter.ai
LinkedIn: https://LinkedIn.Com/in/nmvega (not up-to-date)

MODERNIZING MEDICINE – RDBMS STREAMING CHANGE DATA CAPTURE (CDC) POC ON AWS
NOVEMBER 2017 – MARCH 2018 (3RD PARTY CONSULTANT)

Remotely designed a Change Data Capture POC to generate real-time change-data-event-streams from updates made to multiple MySQL database shards. The architected POC consisted of (1) Kafka Connect connectors tapping into MySQL bin logs and producing change-data-events onto Kafka topics; these connectors are Docker containers running inside AWS ECS, (2) A Kafka platform implemented via Confluent's managed Kafka service on AWS, (3) A custom Python-3 program to consume data from Kafka topics and serialize them as Apache Parquet objects in AWS s3 buckets (enabling business intelligence teams to efficiently query datasets via Apache Impala). Success was to be measured across two KPIs: (1) Replacing an 8-hours long AWS EMR batch job with a continuous data stream, in turn replacing hours-stale datasets with near real-time equivalents and (2) A virtually operator-free (or low-touch) solution by way of a managed-services / quasi-serverless centric design.

SYNERGY – AWS Serverless Architecture for Analytic Reports JUNE 2016 – AS NEEDED (CONSULTANT - RECURRING on RETAINER)

Designed AWS-based capture and report platform to track member engagement and R.O.I. Attributes including member visit dates, check-in/check-out times, membership level, facility feature utilization (e.g. trainers, classes, etc) are added or updated to DynamoDB via calls to AWS API Gateway that trigger IAM-Role enabled AWS Lambda functions to update the database. Local and Global Secondary Indices are used to accommodate various queries efficiently. Analytic results are programmatically fetched using boto3 Python programs and/or using a CloudWatch Events (cron jobs) to periodically trigger Lambda-driven DynamoDB queries that are saved to AWS s3 in CSV format; the completion of which triggers a AWS SNS notification to email a business-owner email address with the CSV's s3 restricted URL.

UNITED BANK OF SWITZERLAND - Business Process Acceleration and Software Development
JANUARY 2015 – MARCH 2016 (3RD PARTY CONSULTANT)

Retained by United Bank of Switzerland 's Evidence Lab for a two-phased project. Phase-1 consisted of an intensive audit of business processes and I.T. capability in New York and London in order to determine what tools could be developed to accelerate financial research analyst activity. The 152-page audit report steered development of a solution consisting of a data transformation pipeline, a mini-Master Data Management (MDM) system, and a taxonomy-centric data catalog. This solution was developed during phase-2 of the project using pure Python-3 and Oracle. The platform enabled the business to receive arbitrary web-derived data, to cleanse, normalize and enrich it; and ingest the final result into a vetted data store which B.I. tools would read. The deliverable was modeled after this solution: https://jupyter.ai/ubs

BANK OF AMERICA – Trade Stream Anomaly & Fraud Detection
FEBRUARY 2014 – NOVEMBER 2014 (3RD PARTY CONSULTANT)

Engaged with Bank of America's trading division to understand requirements for replacing an aging FIX trade analytics system. The replacement needed to identify wash-sales, orders-to-execution latencies, account limit breaches and other trade anomalies in real-time. Next, worked with LOBs to secure buy-in and funding for the Complex Event Processing solution I proposed, which was based on open-source big data technologies including Apache Storm, Apache Cassandra and Redis. After reaching consensus, successfully designed, built and delivered the system which was able to detect and process 12-million events/second. Success of this high-visibility opensource project had a bank-wide side-effect of proving the viability "BUILD" over "BUY" option. The following PDF shows some of the R&D I performed during the final design phase: https://jupyter.ai/bofa

Noelle Milton Vega
BUSINESS-STRATEGIC DATA, ANALYTICS & GOVERNANCE ARCHITECT
Email: nmvega@pivotmath.app | **Portfolio**: https://jupyter.ai
LinkedIn: https://LinkedIn.Com/in/nmvega (not up-to-date)

MERRILL LYNCH – Architect (Recommender System)
MARCH 2013 – FEBRUARY 2014 (3RD PARTY CONSULTANT)

Engaged to design a system to recommend investment research publications to wealth clients browsing Merrill Lynch's financial research portal. (Similar to Amazon's "You make also like" feature). The recommender used a combination Item and User-Similarity collaborative filtering algorithms, as well as K-Means clustering to select from 100's-of-thousands of research publications to recommend for purchase. Inputs to the algorithms included client demographics, client investment objectives and publication attributes such as title text, sector, industry, author, age-of-publication, etc. The system was implemented using a combination of Apache Mahout on top of Hadoop as well as Python-3 and Scikit-Learn. A Talend pipeline was used to shuttle raw input data and computed results between HDFS and a data-warehouse.

SELECT LEGACY EXPERIENCES (PREVIOUS ONES OMITTED FOR RESUME BREVITY)

REUTERS --acquisition—> NASDAQ – Stock Exchange Architect | Performance | SAN | Datacenter Migration
JUNE 2004 – 2006 (EMPLOYEE – REUTERS, then NASDAQ after acquisition)

INET was an electronic trading platform / Stock Exchange developed and autonomously operated within REUTERS. It executed orders at sub-millisecond speeds and transacted billions of dollars in daily trade volume. Being the fastest exchange in the world, NASDAQ acquired it in 2005 to replace its own aging exchange (and today runs NASDAQ and other exchanges globally). I was invited to work there by peers of the dot-com era, (including the -then CTO of INET and NASDAQ), and my pre and post-acquisition roles included: Writing software in C to control the headless compute-grid of embedded Linux systems, including the orders & execution matching-engine itself; Performance engineering to instrument end-to-end tests & measurements aimed at making ECN platform faster; SAN Storage Architecture to capture quotes, orders and execution transactions in real-time; and post-NASDAQ-acquisition Datacenter Buildout & Migration of the INET datacenter from Exchange Place New Jersey to Ashburn, Virginia, including the critical stock exchange cutover during a 3-day weekend.

NYMEX / CME GROUP – Business Continuity / Disaster Recovery Architect (BC/DR) Datacenter
SEPTEMBER 2002 – APRIL 2004 (3RD PARTY CONSULTANT)

The New York Mercantile Exchange (NYMEX) engaged me to design and implement a post 9/11 BC/DR datacenter platform, as well as design policies and procedures to follow in case of disaster. The final platform consisted of a Storage Area Network that connected primary and backup datacenters, and real-time synchronously replicated commodities trades and mission-critical database transactions between them. A draft of the final platform design is seen here: https://jupyter.ai/nymex This platform, along with accompanying processes and procedures, mitigated operational, reputational, financial and legal risk. KPI metrics against which the success of this solution was measured included Recovery Point Objectives (RPO) and Recovery Time Objectives (RTO); both of which were incorporated into bi-annual failover scenarios and tests, which I documented. Full-Cycle responsibilities included:

- Solution presentations to CEO / CIO / CTO to gain consensus
- CAPEX and OPEX justification (ROI / TCO) to plan and procure 3-year budget from the CFO
- Infrastructure capacity planning and right-sizing (including a pay-as-you-grow procurement model)
- Sourcing vendors and vetting respective product lines for fit & fitness.
- Working with facilities personnel and trade-unions to prepare and place incoming infrastructure
- Architecting, Deploying and Documenting the inter-datacenter SAN platform (see above URL)
- Policies & Procedures documentation for failover scenarios.

Noelle Milton Vega
BUSINESS-STRATEGIC DATA, ANALYTICS & GOVERNANCE ARCHITECT
Email: nmvega@pivotmath.app | **Portfolio**: https://jupyter.ai
LinkedIn: https://LinkedIn.Com/in/nmvega (not up-to-date)

CABLEVISION SYSTEMS – Senior Datacenter Platform Architect (CableTV Master Headend)
MARCH 2001 – JUNE 2002 (3RD PARTY CONSULTANT)
Engaged in all facets of the design, development and deployment of Cablevision's inaugural Optimum.TV systems, the nation's first Video-On-Demand CableTV product. Activities occurred at the Master Headend datacenter and included, designing storage and streaming systems for on-demand ordering and consumption of digital content; designing systems and software to enable at-home self-provisioning of new cable boxes; designing highly-available database clusters for customer accounts, digital orders and subscriptions; working with the Conditional Access System (CAS) used to control subscriber access to programming via encryption; Fibre Channel SAN setup and replication of databases and digital content to a backup datacenter; integration with Madison Square Garden (then owned by Cablevision) to offer live and on-demand programming of MSG events; and more.

DELOITTE & TOUCHE – Application Platform Architect; Team Builder & Manager
JUNE 1997 – FEBRUARY 1998 (INDEPENDENT SUB-CONTRACTOR)
As primary consultant, Deloitte & Touche was responsible for building a PeopleSoft / Oracle application that would service Adecco Group's (formerly Olsten) 1,100+ staffing offices globally. As subcontractor to Deloitte, I was retained to architect and deploy the enterprise backend compute, storage, SAN and database farms that would be the foundation of that application. Responsibilities included: Working with stakeholders to obtain capacity growth projections for right-sized, pay-as-you-grow procurement; Building the SUN, EMC, SAN, Veritas, Oracle-based compute and storage farms and documenting them; Building and training the permanent systems team that would operate the farms once I completed the project. A summary of this full-cycle work was captured by the Deloitte Managing Director in his letter-of-commendation: https://jupyter.ai/deloitte

Noelle Milton Vega
BUSINESS-STRATEGIC DATA, ANALYTICS & GOVERNANCE ARCHITECT
Email: nmvega@pivotmath.app | **Portfolio**: https://jupyter.ai
LinkedIn: https://LinkedIn.Com/in/nmvega (not up-to-date)

COVER LETTER

To whom this may concern:

In consideration of my background, I encourage perusing the sample-works portfolio provided here: https://jupyter.ai There you will find the latest copy of this resume, along with select real-world samples of works performed over my career, including diagrams, architectures, letters-of-commendations, whitepapers, certifications, tutorials and more. Thank you.

Early on I observed numerous examples of great leadership, and what distinguished the truly successful from the rest was a higher level of contribution towards an organization's most important goals. I fashioned my career after those observations, and my body-of-work has grown to include consultancy, advisory, entrepreneurship and key driver-roles within the heart of many businesses ranging from global Fortune-500 firms to startups.

The reader may recognize this through my full-cycle collaboration with professionals along the organizational ladder – advising executives on business-value at one end, guiding technology personnel at the other, and interfacing with key stakeholders in between.

I have strategically helped shape business directions towards more sustainable and certain futures • Identified solutions that streamline day-to-day operations • Mentored and guided teams towards successful finish lines • Driven consensus across functional organizations • And hands-on conceived, architected and implemented technology platforms that made enterprise-critical goals lasting realities.

By faithfully applying time-tested best-practices and playbooks, I've been able to replicate those outcomes across disparate enterprises and verticals, including Financial Services, Pharmaceuticals, Telecommunications and Cable-TV Media & Entertainment. Though I remain technical, these days I'm equally sought because I understand the impact that strategic-technologies have on businesses ability to stand tall during these times.

I'd be delighted to discuss your initiatives and review ways in which my technical and business-technical experiences can be of value. I have included an abbreviated variation of my résumé to provide you with additional background that can form the basis for further discussion.

Sincerely,
Noelle Milton Vega

Noelle Milton Vega
BUSINESS-STRATEGIC DATA, ANALYTICS & GOVERNANCE ARCHITECT
Email: nmvega@pivotmath.app | **Portfolio**: https://jupyter.ai
LinkedIn: https://LinkedIn.Com/in/nmvega (not up-to-date)

GENERAL CAREER PROGRESSION

- Career began as Sonar Communications Engineer for G.E. Aerospace (a secret clearance defense project); followed by work as Digital Signal Processing engineer for Sarnoff/RCA Labs (in Princeton, NJ) during its R&D work on DirecTV as part of my Masters Degree thesis.

- Globalization and other macro-economic changes forced a career pivot towards enterprise technology architecture, where with increasing breadth and depth, I navigated my work along Information Technology; Strategic Business-Technology; and Business Optimization roles. These roles began while working for SUN MICROSYSTEMS, where I helped their Tier-1 enterprise clients plan, prioritize, procure and deliver high-stake multi-million initiatives. I would later continue these full-cycle roles under my personal consultancy, PRISMALYTICS / PIVOTMATH, LLC.

- Departed SUN MICROSYSTEMS to found PRISMALYTICS / PIVOTMATH, LLC (originally named RENSSELAER TECHNOLOGY GROUP, LTD), where I've been principal consultant to Fortune-500's biggest brands on their mission-critical projects. As with SUN, successful outcomes span major verticals, including: Financial Services; Pharmaceuticals, CableTV, Media & Entertainment; Securities Exchanges; Commodities Exchanges and Telecommunications.

- Projects -- now numbering in the dozens -- are diverse and include: Investment Bank Trading Floor Systems Design • Data Center Acquisition, Architecture & Migrations • Video On Demand Cable TV Systems • Artificial Intelligence-based Recommendation Systems • Business Continuity & Disaster Recovery SAN Architectures • Real-Time Trade Stream Analytics Platform; and more. URL links on the left and in blue above provide a few examples of work performed.

- I credit sustained success to rigorously adopting, adapting, and faithfully applying the time-tested best-practices and playbooks learned during those many marquee engagements.

CAPABILITIES STATEMENT — PRISMALYTICS, LLC

Mission-Critical Technology Consulting • Online I.T. Instruction and Assessments

ABOUT PRISMALYTICS (1997 – PRESENT)

Latest version of this statement: https://prismalytics.io/capabilities

Originally formed as RENSSELAER TECHNOLOGY GROUP, LTD in 1997 and reformed as PRISMALYTICS, LLC in 2013; PRISMALYTICS has been principal architect, engineer and strategic advisor to Fortune-500's biggest brands, on their high-value mission critical technology initiatives.

Successful outcomes span major verticals, including: CableTV, Media & Entertainment • Pharmaceuticals • Financial Services • Securities Exchanges • Commodities Exchanges • Telecommunications.

Projects types are equally diverse and include: Financial Trading Systems • Data Center Architectures • Backend Platforms for VoD CableTV Services • Artificial Intelligence-based Recommender Systems • Multi-Datacenter Business Continuity & Disaster Recovery Platforms • Fibre Channel SAN Data Architectures • Real-Time Complex Event Processing (CEP) Platforms for Trade Stream Analytics • Backend Software Development • Cloud Big-Data Platforms for Streaming & Batch Analytics • and more.

PRISMALYTICS is also the company behind the VERILABS platform and product (https://verilabs.io); a Cloud-Native platform for Online Technology Education • Proficiency Exams • and Rapid Solutions Prototyping, on virtually any Information Technology Ecosystem.

Over a near 25-year span – which has witnessed unrelenting change in technologies, tools, techniques and trends – PRISMALYTICS credits it's sustained success to adopting, adapting and faithfully applying the time-tested best practices and playbooks learned during those many marquee engagements. Select real-world artifacts resulting from this body-of-work is found here: https://jupyter.ai

CORE CONSULTANCY COMPETENCIES • PRODUCTS

CONSULTANCY

❖ C-Suite Advisory for Strategic Business-Technology Adoption
❖ Batch & Streaming Data Analytics (Data Engineering & Science)
❖ Cloud Data-Platform Design: Analytics • Data Stores • Logistics
❖ Event and Data-Driven Backend Software Development
❖ Cloud-Native, Containerized Designs via Infrastructure as Code
❖ Business Continuity / Disaster Recovery Platforms & Processes
❖ Multi-Datacenter Storage Area Network (SAN) Design

PRODUCTS

❖ VERILABS platform: Rapid Solutions Prototyping & Simulation
❖ VERILABS platform: I.T. Instruction and Skills Assessment

WHAT SETS PRISMALYTICS APART

▪ **Time-Tested / Past-Performance Proven**: Founded by the former lead architect to Sun Microsystems' Northeast Tier-1 clients, PRISMALYTICS' successful body-of-work spans 23-years, 6-verticals, and many enterprises-critical successes. As evidence of past performance, we offer a commendation letter from **Deloitte** for a delivered mission-critical project: https://jupyter.ai/deloitte

▪ **Mitigated Risk**: We use our VERILABS cloud platform to emulate client I.T. environments, as well as to prototype various solutions prior to implementing one; leading to optimized final solutions, rehearsed deployments and overall risk-mitigated adoption.

▪ **Reduced Time-To-Benefit**: Projects with procurement delays can continue prototyping atop VERILABS' R&D Lab, applying results that emerge from it onto *eventually-procured* assets. This strategy was adopted on a **Bank of America** greenfield project, resulting in an on-time delivery of these lab results: https://jupyter.ai/bofa

▪ **Transparency**: Where client permission was granted, we share select artifacts from engagements that document our deliberative approach to solutioning. Assets include diagrams, whitepapers, code fragments, technologies & techniques, explainers, Jupyter Notebooks, and more. For instance, the following is the Multi-Datacenter SAN that we architected for **The New York Mercantile Exchange / CME Group** in order to implement its Business Continuity / Disaster Recovery goals: https://jupyter.ai/nymex

▪ **Better ROI**: We over-deliver results that reliably operate for years. Accompanying every delivered platform, we provide operator training, guides, well-planned future OpEx budgets, and more. Because details matter, we always outperform even large rivals.

GENERAL INFORMATION

Registered Company Name:	PRISMALYTICS, LLC
Year Incorporated (as LLC):	2013 (Originally formed in 1997 as a LTD)
State of Incorporation:	NEW YORK STATE
Corporation Type:	LIMITED LIABILITY COMPANY (LLC)
D-U-N-S Number:	111811606
CAGE:	8SVR8
In Business Since 1997:	Originally formed as RENSSELAER TECHNOLOGY GROUP, LTD in 1997; then reformed as PRISMALYTICS, LLC in 2013.

CONTACT INFORMATION

Voice: (212)-882-1276
Fax: (646)-787-0760
Email: hello@prismalytics.io
Web-1: https://prismalytics.io
Web-2: https://jupyter.ai
Web-3: https://verilabs.io

CAPABILITIES STATEMENT — PRISMALYTICS, LLC

Mission-Critical Technology Consulting • Online I.T. Instruction and Assessments

SELECT PAST-PERFORMANCE ENGAGEMENTS

FORTUNE-500 END-CLIENT	ENGAGEMENT ROLE(S)
❖ Bank of America	❖ Data platform design for real-time trade analytics
❖ Cablevision Systems (now Altice)	❖ Backend systems design for On-Demand CableTV
❖ NY Mercantile Exchange (NYMEX / CME Group)	❖ Multi-Datacenter Disaster Recovery Platform Design
❖ REUTERS INET -> NASDAQ Stock Exchange	❖ Engineering for Stock Exchange Network (ECN)
❖ Bank of Nova Scotia – Chief Data Officer (CDO)	❖ Director Data Analytics, Standards & Processes
❖ Network Appliance (NetApp)	❖ Product Creator for OnTAP Mgmt Software
❖ Deloitte & Touche	❖ Datacenter Compute, SAN and Storage Architectures
❖ Merrill Lynch -- Investment Research	❖ Machine Learned Article Recommender Engine

NORTH AMERICAN INDUSTRY CLASSIFICATIONS (NAICS)

- ❖ 541511 – Custom Computer Programming Services
- ❖ 541690 – Other Scientific and Technical Consulting Services
- ❖ 541618 – Other Management Consulting Services
- ❖ 611710 – Educational Support Services (Information Technology)
- ❖ 541512 – Computer Systems Design Services
- ❖ 611420 – Computer Training (I.T. Skill Training & Assessment)
- ❖ 611519 – Technical & Trade Schools (via https://verilabs.io)
- ❖ 541519 – Other Computer Related Services
- ❖ 518210 – Data Processing, Hosting, and Related Services

SELECT PAST-PERFORMANCE END-CLIENTS

SELECT TECHNOLOGY CERTIFICATIONS

https://jupyter.ai/aws-certifications
- ❖ AWS: Certified Developer Associate
- ❖ AWS: Certified Solutions Architect Associate

https://jupyter.ai/deeplearning-certification
- ❖ Coursera: Certified Neural Network & Deep Learning (Andrew Ng)
- ❖ Coursera: Certified Structured Deep Learning Projects (Andrew Ng)
- ❖ Coursera: Certified Neural Network Optimization (Andrew Ng)

M / WBE CERTIFICATIONS (LOCAL)

- ▪ M/WBE: City of New York, Small Business Services (SBS)

M / WBE CERTIFICATIONS (REGIONAL & STATE)

- ▪ M/WBE: NMSDC of New York & New Jersey
- ▪ M/WBE: State of New York (In-Progress; Pending)

M / WBE CERTIFICATIONS (FEDERAL)

- ▪ M/WBE: SBA 8a (In-Progress; Pending)