

**Financial Technologist (Product Management, Systems Architect, and Full Stack Developer)**

**AREAS OF EXPERTISE**

- Financial Protocols/Data (Bloomberg, Reuters, Markit, FIX/FPML, VCON FIX, Riskmetrics, SuperD, ICAP, JPM (DQ)...) )
- 3<sup>rd</sup> Party Systems (Geneva, Calypso, FrontArena, TT, CS(AES), GS/Redi, JPM, BARX, TradeWeb, MarkitSERV, FXAll, Intex ...)
- Infrastructure/Databases (AD, Exchange, CRM, VMware/Citrix, Azure, AWS, GCP, VOIP, SQL, SSAS, SSRS, KDB, VPN, Docker, Hadoop, HDFS, Kubernetes ...)
- Programming/Messaging (.NET/F#/C#, C++, Java, Python, Scala, Matlab, R, Excel, OLAP, CUDA, Mobile, Node, React, Reactive, Serverless, Solidity, Rust...)
- Product Knowledge/Analytics (FX, FI/Credit, OTC, Structured/Derivatives valuation, FinCAD, Numerix, ITO33, CreditAnalytics ...)
- Data Science/Quant/AI/ML/Visualization (Spark, Pandas, Jupyter, D3, Graph, Tensorflow, Keras, CNTK, Caffe, Quantlib, MKL, NLP, NLTK...)

**WORK EXPERIENCE (PAST 15 YEARS)**

**DYNAMO FUND**

**2020-2023**

**CTO (Startup Hedge Fund: systematic macro)**

**New York, NY/Greenwich, CT**

- Helped bootstrap fund during covid pandemic heavily utilizing cloud technologies and remote deployment of technologies (AWS Microsoft, Intel NUC, ...)
- Built out trading connectivity via Bloomberg EMSX to over 20 exchanges (Python, Bloomberg EMSX/Desktop API, ngrok, React, AWS, ...)
- Monitor overnight trading and rebalancing for trading strategies (Python, Pandas, EMSX/Desktop API, ...)
- Built/Run reconciliation of trades/cash in multi-currency portfolio (Python, Pandas, ...)
- Built out risk reporting for internal and reporting purposes (Python, Pandas, ...)
- Contributed to the marketing deck (RevealJS, React, ...)

**QCOMPUTE LLC** (Experience Consolidated in Descending Order; lines separate projects)

**2017-Present**

**Owner (Notable Projects consulting for various Fintech/Capital Markets)**

**Tri-State**

- Built Consumer credit monitoring service focus on early detection as a React PWA (AWS React Stripe Node Serverless Python)
- Built Scalable Credit Reporting Data Validation/Enrichment Service (AWS React Stripe Docker Containers Serverless Node Python QuickSight)
- Built POC invoice financing platform for food services/fintech financing startup (AWS React Node Python Rekognition D3 Svnfusion Diagramming LoanPro)
- Evaluated, Architected Solutions for asset securitization of consumer loan portfolios (LoanPro, AWS, WebBank, Cross-River, ABS, SPV Financing)
- Evaluated, Implemented, Deployed Loan Management/Servicing into fintech startup's infrastructure (LoanPro, AWS, Credit Scoring, GBM, Machine Learning)
- Built Consumer Loan Application Web Application for machine learning fintech startup (React, Node, AWS, Serverless, LoanPro, Plaid, Python, Keras)

**CADENCE GROUP**

**2018-2020**

**CTO (Seed series startup: retail investor platform for asset securitization of financing/private credit)**

**New York, NY**

- Managed a Growing Technology team from none to engineering pods (JIRA Agile OKR)
- Took over POC and architected/rebuilt as Flagship Product for launch in 6 months (Python Heroku Django postgres React Node AWS Lambda Serverless Plaid Onfido)
- Built Cadence Debt Token (CDGXX): ERC20 Upgradable Contract mirroring compliant reg-D offering (Solidity, Ganache, web3js, ethers, Infura...)
- Contributed to several key business decisions and partnerships (Bloomberg Data, FIGI, Bloomberg Enterprise Solutions App Portal, Smart Contracts Web3)
- Successfully listed CDGXX tokens to the Bloomberg Universe as Prom. Notes M-Mkt key: A Crypto First (Bloomberg Enterprise, SPFS...)
- Built Cadence Private Credit Explorer on Bloomberg App Portal (Bloomberg Data, FIGI, React, AWS GraphQL AppSync)
- Part of Management Committee and contributed to hiring across the company
- Integral to operations and processing of cash and accounting for deals

**PARALLEL COMPUTATIONS** (Experience Consolidated in Descending Order; lines separate gaps)

**2008-2009, 2011, 2012-2017**

**Owner (Notable Projects consulting for various Hedge Funds/Prop Desks, Fintech)**

**Stamford/Greenwich, CT**

- Built Data Science environment to generate/analyze learning strategies on Macro-economic data (Pandas, Jupyter, Keras, web scraping, pipelining, workflow...)
- Designed/Prototyped workflow for fintech in securitizing consumer debt (Nortridge, Investran, Bloomberg, C#, xml processing ...)
- Built Portfolio Back-Testing Engine for manager selection/on-boarding (Agent Design, Jupyter, Pandas, HDF5, Concepts from "Portable-Alpha", Risk selection theory...)
- Build-out Infrastructure, Trading Floor, Risk, Accounting for MBS/Credit Hedge Fund (IPC, Avaya, HP, Advent Geneva, Quantifi, VMware...)
- Build-out Risk Monitoring, Trading, and Exchange Connectivity for LatAm Prop Trading Desk (C++, C#, FIX/FAST, WPF, ZeroMQ, ICE, low latency)
- Build-out/Integration for a Macro/MBS fund's Portfolio, Accounting and Risk Reporting systems (SSRS, Geneva, Bloomberg AIM, Imagine IFF, C#...)
- Built Front office visualization tools for quantitative L/S Fund (time series analysis, Numerics, BBG Server API, TreeMap, "Spider" Node Graph, Tuftte, "Tagging", C#)
- Rebuilt a systematic trading strategy prototyped in Excel/VBA for a quantitative fund (Deltix, R, ExcelDNA, FIX\_XLL, C#, NoSQL, MongoDB)
- Automating news/event-based strategies, real-time mirroring of human based trading with automated hedging (GS/Redi, FIX, .Net, Web scraping, Twitter)
- "On-Boarding Analysis" created tool to analyze incoming PM teams: return/factor analysis, Portfolio/Risk statistics. (C#, ASP.NET)
- Built Risk Analysis/Reporting platform for a Fixed Income Risk group. (Reporting Services, SharePoint, C#, Custom FI Pricing Library)
- Extended risk functionality in SunGard's FrontArena<sup>®</sup> Portfolio Management system. (Python, C++, C#, ADFL, Sonic ESB)
- Created custom trading solution using TT<sup>®</sup> API for Trading Group. (C#)
- Integrated ITG's soft dollar commissions functionality. (C#, MSSQL)
- Worked on several Tactical Projects using Calypso<sup>®</sup> Portfolio Management System and Paladyne<sup>®</sup> Security Master. (Java, C#, MSSQL)

<b>BELLPOINT CAPITAL</b>	<b>2011-2012</b>
<b>CTO (\$500m credit fund: corp. bonds, high yield, CDS, futures, ETFs, options, loans)</b>	<b>NY, NY</b>
<ul style="list-style-type: none"> <li>● Created unified analysis/reporting framework servicing: trading, PM, Risk, and Investor Relations (.Net, MSSQL, SSAS, MDX, OLAP, SSRS)</li> <li>● Completed integration to Bloomberg OTC FIX connectivity for Fixed Income/VCON trading/operations (.Net, QuickFIX)</li> <li>● Completed integration with Omnium/Northern Trust Fund Administrator for daily reporting purposes (.Net, MSSQL, SSIS, SSRS)</li> <li>● Created reporting on High Yield ETF constituent Analysis for the front office. (.Net, BBG, IIS, ASP.NET)</li> <li>● Created Risk reports for portfolio analysis and Investor reporting (.Net, BBG API, SSRS, SSAS, MDX, Fixed Income Analytics ...)</li> <li>● Maintained reports for Advent Geneva. Developed WFM workflow for import into warehouse (.Net, RSL, SSIS, WFM ...)</li> <li>● Managed outsourced IT infrastructure with InfoHedge service provider.</li> </ul>	
<b>GALLE GLOBAL MACRO PARTNERS</b>	<b>2009-2011</b>
<b>Head of Technology/Developer Lead (\$450m macro fund: futures, options, FX, IRS, swaptions, CDS)</b>	<b>NY, NY</b>
<ul style="list-style-type: none"> <li>● Instrumental in creation of fund (selection/build-out of office, Fund Admin. evaluation, Equipment leasing, Business Continuity Plan)</li> <li>● Created ops workflow and technology plan according to “best practices”, completed 20+ successful Due diligence meetings</li> <li>● Built/Maintained complete infrastructure: AD/File/Email/Databases, dual internet, Disaster/Backup, VOIP, VPN, Blackberry</li> <li>● Built STP integration between Traiana for FX and MarkitSERV for Rates and Credit. (C#, C++, MSSQL, FPML)</li> <li>● Main Architect and Developer for the Front Office. (Windows/Azure technology stack, Python, BBG Server API, DevExpress...) <ul style="list-style-type: none"> <li>● Extended SunGard’s FrontArena® Portfolio Management system. (Python, C++, ADFL)</li> <li>● Created a Timeseries Database combining several data sources for rapid analysis in Excel and Matlab. (C#, XLL, MSSQL, OLAP)</li> <li>● Wrote proprietary portfolio/risk analysis tools and trade loaders for the Front Office. (QuickFIX, Broker APIs, C#/WPF, Syncfusion)</li> <li>● Developed replacements for legacy pricers written in Excel/VBA. (Numerix, CUDA, ISDA CDS, Quantlib, C++, C#, ExcelDNA)</li> </ul> </li> </ul>	
<b>FORTRESS INVESTMENT GROUP, Drawbridge Global Macro</b>	<b>2006-2008</b>
<b>Senior Systems Architect (\$6bil multi-strat global fund: equities, options, futures, FX, corp. bonds, CDS, OTC, exotics)</b>	<b>NY, NY</b>
<ul style="list-style-type: none"> <li>● Managed order flow and built automated processes for External Portfolio Business. (C#, Broker APIs, MSSQL, ASP.NET) <ul style="list-style-type: none"> <li>● Created a system for generating instructions for monthly/weekly rebalanced portfolios derived from signals by external managers</li> <li>● System generated trades to apply both currency and index hedges to maximize alpha.</li> <li>● Generated full risk attribution and performance reporting for the portfolio to present to the management committee.</li> </ul> </li> <li>● Responsible for Front Office integration working with incoming PM’s to develop replacement technology lost in transition to Fortress. <ul style="list-style-type: none"> <li>● Developed with many technologies. (C#, C++, Java, MSSQL, Broker APIs, FinCAD, Riskmetrics RML, Quantifi, HOLT, Infragistics...)</li> <li>● Supported PM’s globally including onsite to help launch the Fortress Commodity Fund in London. (BBG, VBA, XLL, Matlab)</li> </ul> </li> </ul>	
<b>LAUREL RIDGE ASSET MANAGEMENT</b>	<b>2002-2005</b>
<b>Vice President, Technology (\$500mil AUM, Relative Value fund: equities, options, futures, conv. bonds, OTC, loans)</b>	<b>NY, NY</b>
<ul style="list-style-type: none"> <li>● Designed, developed and maintained complete trading/risk infrastructure and in-house applications. (C#, C++, ITO33, PGM, Multicast)</li> <li>● Directly reported to the Partners of the fund managing architecture and decisions regarding technology.</li> <li>● Implemented full STP between execution brokers, 2 prime brokers and Fund Administrator. (FIX, REDI, C#)</li> <li>● Developed Security Master capturing listed and OTC reference data sourced from Bloomberg Data (BBG DAPI, MSSQL)</li> <li>● Developed in-house Order Management System (BBG Gateway, C#, C1/ Infragistics).</li> <li>● Built/Maintained full Infrastructure: Directory/Email/File/Database/Blackberry including branch office for backup/disaster recovery.</li> </ul>	
<b>SOLILOQUY INC</b>	<b>1999-2001</b>
<b>Software Engineer (Founding member of a Silicon Alley.com Startup)</b>	<b>NEW YORK, NY</b>
<ul style="list-style-type: none"> <li>● Developed web-based automated sales agents utilizing AI/Natural Language Processing for client e-commerce websites <ul style="list-style-type: none"> <li>● “Chat-Bots” could simulate a conversational dialogue with customers about products they wished to purchase.</li> </ul> </li> <li>● Developed Prototype, Developed/Managed redesign to final product. (IIS/ASP, Linux Apache, C++, CORBA, PERL, Smalltalk)</li> </ul>	
<b>EDUCATION</b>	
SUNY, Stony Brook, NY	<b>1997-1999</b>
<b>Applied Mathematics/Computer Science</b> (completed coursework, left for start-up, prior to completing degree)	<b>Stony Brook, NY</b>