

David Mossakowski

dmossakowski@gmail.com

SUMMARY

Engineering Manager and Tech Lead with experience spearheading the research, development, and deployment of enterprise software solutions at scale. Hands-on leader focused on empowering cross-functional engineering teams to deliver solutions that best fit the business needs and to the highest quality standards. Business knowledge of US Capital and FX Markets (Fixed Income and Foreign Exchange) and Retail Supply Chain and Category Management space. Strong interest in blockchain and related technologies.

SKILLS

- **Product & Engineering:** Application Development, Architecture Design & Coding, Algorithm Design, Data Analytics & Visualization, User Experience, Digital Transformation, Roadmap Development, Feature Planning & Prioritization
- **Leadership:** Strategic Planning & Execution, Project Management, Prioritization, Process Improvement, Cross-functional Collaboration, Staff Hiring & Management, Training & Development, Coaching & Mentorship, Executive Reporting
- **Programming:** Java (CXF, Spring Framework, FasterXML), Python (numpy, pandas, matplotlib, plotly, sklearn), q (from kx systems), JavaScript (VueJS, React, web3), Solidity (OpenZeppelin), Visual Studio Code, PyCharm, IntelliJ, Eclipse
- **Tooling:** Tomee, Weblogic, Kafka, ActiveMQ, RabbitMQ, Tibco EMS, Tibco Rendezvous, KDB+, PostgreSQL, Oracle, Docker, Git, Jenkins, Nexus, JIRA, Azure DevOps, SAML, OpenID Connect, Open Telemetry, Zipkin, ganache, Infura
- **Protocols & Standards:** JSON, XML, FIX, FpML, HTTP, SSH, AMQP, JMS, JDBC, REST, OAuth 2, ERC-20, ERC-721, ABI, YAML
- **Languages:** English, Polish, French

RELEVANT EXPERIENCE

Engineering Manager - R&D Technology, Symphony Retail AI

2018 - Present

- Managed a distributed R&D Technology team of 10 successfully integrating all members equally into a dynamic cross-functional team through even, merit based task distribution and pairings for tasks across the ocean divide.
- Spearheaded adoption of Microsoft Azure DevOps platform to manage source code, builds and project instituting Agile bi-weekly sprints, estimation and retrospective sessions as well as peer pull request reviews giving everyone voice.
- Held regular 1 on 1 meetings with team members to discuss their career objectives, challenges and plan their advancements either through promotion, involvement in other projects or challenges to achieve stretch goals to test strength.
- Worked with HR on the hiring process by volunteering to modify online programmer testing suite (Mettl), working on better job descriptions, promotion on LinkedIn and participating in beta tests of internal hiring pipeline application.
- Advocated and helped implement a central release repository with the Integration team to decouple different product build methods from deployments and deliveries which greatly increased efficiency of both sides by increasing deploys.
- Drove adoption of automated unit and functional testing across multiple projects using Karma, Jasmine and TestNG including automated testing on an Android emulator using Katalon, greatly reducing regressions.
- Modernized the mobile application build process by implementing Shared Device Mode and AppConfig on Android and iOS to enable automatic provisioning, single sign-on and automatic configuration through Microsoft Endpoint Mobile Device Management and Google Enterprise Play Store.
- Implemented support for Camunda Business Process Management (BPM) engine for special client bespoke processing needs, PostgreSQL support, OpenIDConnect authentication, Kafka client to keep local data storage up to date.
- Improved product demand forecasting AI system by instituting better coding practices and model testing on sample canned historical data allowing to quantify improved model performance.

Team Lead - Post Trade Clearing and Reporting, trueEx

2014 - 2018

- Led a 5 person team in a financial technology startup of 50 people developing a real-time electronic Interest Rate Swaps trades processing system for trades on and off our CFTC-regulated exchange challenging big banks in derivatives markets.
- Traveled 3 times per year to stay in the Romanian office working with our technology partner to exchange ideas on how to improve our working relationship, closer align our goals and perform financial industry training.
- Maintained clear documentation and API design to allow receiving trades from both UI clients (in real time and over batch uploads) and over FIX connections from third parties during London and New York trading sessions.
- Through liaison with the Regulatory team and very tense meetings, implemented ANNA ISIN integration mandated by the MiFID II European Union packet of financial industry reform to expand into European markets through our London office.
- Increased product offering to FRA, Swaptions, and MAC and business functionality to include 2 sided price, batch clearing and request for quote (RFQ) to cater and convince the big banks to trade and enable onboarding of new customers.
- Automated the clearing and reporting of trades at LCH and CME clearinghouses to the DTCC using Financial products Markup Language(FpML) over Websphere MQ to drive efficiency and productivity and maintain security and compliance.
- Expanded the capabilities of the regulatory team for evaluating trades by adding real-time price and volume context to transactions including market data and participant CRM details using Nasdaq SMARTS trade surveillance system.

- Provided data for FIX gateways on streamed prices, products, and streaming duration for the sales and the executive billing dashboards to calculate charges for trades done on the platform and discounts for customers streaming prices.
- Developed an internal regression testing methodology that compared 40K+ artifacts generated by the Post Trade system including FpMLs, SWBML, and Emails with the same artifacts generated using a previous version of the application.

Vice President - Capital Markets, Citigroup

2004 - 2014

- Developed proprietary FX trading algorithms to maximize and optimize order execution to best fit various trade strategies.
- Created a tool using kdb+ data to display the life of an order as a time series that helped identify additional trading opportunities and aided in debugging existing strategies to enhance algorithm design.
- Performed statistical analysis using KDB Studio and MATLAB and developed a distributed system of data listeners and transformers feeding trading algorithms to improve performance and quality with q programming language.
- Built a globally distributed data cache fabric for trading applications based on GemFire that contained 100+ caches with 4MM+ FI and FX referential data spanning 6 data centers globally with <1s propagation time from North America to Asia.
- Provided currency, calendar, warehouse routing, customer lookup, and pricing branch functionality for FX and FI trading systems and enabled browsing, administration, and monitoring of the cache using HTTP REST and JMX interfaces.
- Reduced costs, improved uptime, upgraded and grew Tibco EMS instances from 4 to 26 globally by replacing custom handlers with a federated approach using generic configurable handlers and internal standard change management.
- Implemented continuous software integration systems using Hudson/Jenkins and Artifactory/XENV that eliminated manual builds and deployments and reduced the time from a commit in Eclipse to go live from 12 hours to less than 3 minutes.

Senior Software Engineer, Instinet Corporation

1996 - 2004

- Designed and developed BookMark, a real-time, web-based full-book stock viewer with data streamed over HTTP.
- Served as the Development Lead for a web app that allows traders to create filters including client type & holdings and view execution reports for large orders with middleware connected to the system & evaluator servers for target client selection.
- Led the development of a Server Management facility to manage and monitor server applications with a client console that provided template views of server events, lists of available commands, and general health updates for applications.
- Created a global Employee Directory for 1000+ employees, a web-based frontend for an after-hours trading product, a corporate training Class Scheduler, and an automated Resume Manager for recruiting.
- Designed and developed client certification software that aligned client book-building algorithms to internal data feed rules.

EDUCATION & MEMBERSHIPS

- Bachelor of Science in Computer Science, Pace University, New York City
- PLUGin Foundation member - Partnerships
- La Fédération Sportive et Gymnique du Travail (FSGT) - mountain and climbing section