David Mossakowski

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SUMMARY

Senior 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.

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, Python (numpy, pandas, matplotlib), q (kx systems), JavaScript (VueJS, React), Solidity, Web3, ganache, Infura, Visual Studio Code, PyCharm, Eclipse, IntelliJ
- **Tooling:** Tomee, Weblogic, Kafka, ActiveMQ, RabbitMQ, Tibco EMS, Tibco Rendezvous, KDB+, REST, JSON, FIX, PostgreSQL, Oracle, Docker, Git, Jenkins, Grafana**,** JIRA, Azure Devops, SAML, OpenID Connect, Open Telemetry, Zipkin
- **Languages:** English, Polish, French

RELEVANT EXPERIENCE

Senior Project Manager - R&D Technology, Symphony Retail AI   2018 - Present

- Spearheaded the adoption of Microsoft Azure DevOps and agile methodology by migrating source code repositories, development workflows, project management and instituting biweekly sprints with estimation and retrospective sessions.
- Upgraded the Supply Management mobile app to comply with the Google Play Store and Microsoft Endpoint Mobile Device Management (MDM) software to support Appconfig and Shared Device Mode (through MSAL library).
- Drove adoption of automated unit and functional testing across multiple front and backend projects using Karma, Jasmine, and TestNG including testing on an Android emulator using Katalon, greatly reducing regression.
- 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 development of a real-time electronic Interest Rate Swaps trades processing system (TPS) for trades on and off a CFTC-regulated exchange received from UI and over FIX connections during London and New York trading sessions.
- Increased product coverage to FRA, Swaptions, and MAC and business functionality to include 2 sided price, batch clearing, and ANNA ISIN integration mandated by MiFID II to expand product offerings 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
- La Fédération Sportive et Gymnique du Travail (FSGT) - member of mountain and climbing section