Greg Hamamgian

Senior Software Engineer
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Inventory

Primary Languages: C/C++, Java, Perl, SQL, Javascript

Technologies: AWS, bcrypt, Boost, Boostrap, CORBA, Express, git, Hibernate, HTML/CSS, JBoss, JMS, JSON, JWT, Node.js, Sequelize, Spring, STL, Oracle, Postgres, Ultra Messaging/29 West, XML, XSLT

Patents:

Interval Price Limits (US20130024353A1)
Electronic trading data integration and protection system (WO2005065384A2)

Education

2021 - DigitalCrafts - Full Stack Web Developer Bootcamp

1991 - 1995 - University of North Carolina at Chapel Hill - BS Mathematical Sciences with Honors

Professional Software Experience

IntercontinentalExchange (ICE) - Atlanta GA **July 2020 - Present**
Director of Development, Trading System
I have recently rejoined the Trading Systems team and am responsible for the core C++ development teams including the Trading Engine (TE) team, the ICE Matching Engine (IME) team, and the Curve Engine (CE) team. These three pieces of software are responsible for running and managing some of the world's largest futures and options markets. Duties include:

- Supporting major functional releases including launching new exchange products such as the recent Murban Crude Oil Futures contract for the Abu Dhabi exchange.
- Designing and delivering major new technical enhancements including:
  - Migrating the TEs onto Linux and defining a new HA solution as a pre-requisite for this migration.
  - Navigating a multi-year effort to transition to a new datacenter.
  - Continuing to innovate ways of improving performance.

IntercontinentalExchange (ICE) - Atlanta GA **Nov 2015 - July 2020**
Senior Principle Engineer - Trade Reporting and Confirmations
Responsibilities included designing and implementing solutions and enhancements for the Trade Confirmations and Regulatory Reporting systems at ICE. These systems are primarily Java Spring Boot applications that serve either as web applications or as IBM MQ connected services. The trade repositories span multiple regulatory jurisdictions around the globe including the US (CFTC), EU (EMIR, REMIT), Canada (OSC), and UK (FCA).

- Coordinated 3 distinct Brexit transitions (March 2019, October 2019, and December 2020). Each change of date corresponded to changes in requirements including integration impacts with EMIR, FCA, and ACER
- Worked on an architectural redesign of the system to better align system implementation with intended business workflows and processes.

- Articulated the roles and responsibilities of a trade repository and championed architectural changes to alter the direction of the system's development. This distillation of purpose has led to a clarity of thinking when designing and implementing new system features.
- Advocating for best practices within the development team. Keeping the team focus on business intent while simplifying the implementation at every opportunity.
- Radically simplified the design of the system through analysis of the regulations as well as quantifying system usage. Focused on fully embracing the differences between regulatory jurisdictions and providing purpose built systems to meet the needs of those regulations.
- Redesigned the EMIR Trade Repository as part of the 2017 rules changes. This redesign aligned the repository with its business purpose and significantly reduced support issues.

Personal Sabbatical - Camino de Santiago, Camino Frances **Jan 2015 - Nov 2015**

After successfully completing the NYSE/LIFFE acquisition, I took a year off in order to pursue some personal interests including training for and hiking the Camino de Santiago.

IntercontinentalExchange (ICE) - Atlanta GA **May 2002 - Jan 2015**

During my first tenure at ICE, I was fortunate to learn a great deal about low-latency trading systems as well as about futures and options markets.

- Managed two teams of developers: the Trading Engine and Settlements/Reasonability teams.
  - Dealt with personnel issues: hiring/firing decisions, reviews, promotions, etc.
- Interacted regularly with key stakeholders: QA, Project Management, Product Management, Compliance, Operations, and C-Level executives.
  - Acted as a liaison between these different groups and the technology teams I led, translating fluently across all of them.
- Architected multiple cross-component features spanning all the systems within the trading architecture. This required building consensus with different leads across the organization as to what an appropriate solution might look like and how to implement it.
- Designed and implemented the TradingEngine (TE), the company's next generation trading server for futures and options markets. The TE is a multithread C++ multicast server that is a re-design of the legacy GemStone/SmallTalk system with an emphasis on performance. Features of the TE include:
  - Sub-millisecond performance.
  - A pipelined architecture to support maximum throughput with minimum lock contention. This allows us to parallelize unrelated activities at a course grain level.
  - Out-of-band persistence of results.
  - The use of the Boost third-party libraries.
  - A flexible design that allows us to support futures and options markets across multiple business domains.
  - Extremely effective use of automated functional testing using CppUnit.
- Provided production support for each system I was involved with; ensuring major global financial markets remained open and executing smoothly.
- Played a key role in the successful and timely integration of the LIFFE futures and options markets as part of ICE's acquisition of NYSE Euronext. This was a large development effort that greatly impacted numerous system components.
  - Performed detailed analysis of the functionality required to support the new LIFFE markets. This required a thorough analysis of current ICE and LIFFE systems including trading, settlement, and reasonability. I worked closely with teams in London and Atlanta to help define the final outcome.
  - Provided technical leadership on non-functional issues such as performance requirements and support for multiple data centers.