

Matthew Trumbell

1740 W Belmont Ave #4, Chicago, IL 60657

773.332.0150 matthew@trumbell.net

I am a technical manager of software and IT projects with over a decade of experience delivering software, infrastructure, and analysis for the financial industry. My teams deliver technology solutions that facilitate intelligent and reliable trading while effectively managing its inherent risk.

Experience

Third Stone Partners — Director of Technology (2011-Present)

Manage a four-person team of quantitative analysts, developers and consultants in implementing, deploying, and supporting several large software systems while managing the firm's office and production networks and infrastructure.

- Delivered risk management and back-office systems for commodity derivative portfolios. The system supports multiple trading groups and high daily volume, and is web delivered and accessible from a wide range of devices. (Python, Django, Javascript, React, C++, AWS, PostgreSQL)
- Designed interactive reporting software supporting live and historical analysis with a focus on volatility and portfolio management. (Javascript, React, Python, Django)
- Implemented software that allows backtesting and running live trading strategies. Both long-dated and low-latency strategies are supported. (.Net, Javascript, MongoDB)
- Created research tools for designing and evaluating grey-box algorithmic trading strategies. (Python, Pandas, PostgreSQL)
- Developing a system to automate the management of commodity derivative portfolios, handling position entry, hedging, and rebalancing according to custom analytics. (Javascript, C++, Java)
- Collaborate with traders to create and improve trading strategies, automate existing trading activity, and create analytics critical for execution in multiple markets.

TradeForecaster — Senior Developer (2007-2011)

Designed and implemented electronic trading infrastructure used to trade both long-term position and low-latency trading strategies.

- Led initiative to support backtesting, research, and creation of trading strategies as well as analysis of portfolio performance over time.
- Led back office software and IT infrastructure efforts to support proprietary and commercial trading systems.
- Delivered a distributed, scalable trading system that supported dozens of customizable algorithmic trading strategies utilized by customers to execute live and simulated trades. (.Net, Flex, Python, Django, PostgreSQL)
- Created a high-frequency algorithmic trading system for full-book futures strategies. The system was optimized to achieve extremely low latency between the receipt of market data and transmission of orders. (C, Win Forms, Protocol Buffers)
- Developed methods to rapidly create new strategies, backtest them over large quantities of historical market data, and optimize their profitability. (.Net, Python, PostgreSQL, Javascript)
- Designed live reporting software to visualize, analyze, and optimize trading strategies. (Python, Django, PostgreSQL)

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Chicago Trading Company — Development Manager (2006-2007)

Managed a five-person development team responsible for the delivery of pricing and risk assessment systems actively used by traders.

- Established and implemented development standards including extensive testing requirements, consistent project structures, and thorough automation.
- Collaborated with traders to establish and prioritize project goals and fostered a productive team environment, ensuring the professional growth of the team.
- Increased the speed and stability of connections to the firm's pricing engine and wrapped that connectivity in a consistent and extensible API. (C++, COM, .Net)
- Created a predictive multi-dimensional cache for option prices, dramatically decreasing the latency of option price delivery to electronic trading systems. (.Net)
- Developed software to monitor the firm's trade stream and take market actions such as updating position information at the exchange, alerting traders, and adjusting risk limits. (Java)

DRW Trading — Development Manager (2002-2006)

Managed a five-person development team responsible for the delivery of risk management systems, option valuation libraries, and position analytics.

- Developed a system for making dynamic calls to option pricing models and distributing those calculations to multiple systems. (.Net)
- Created custom algorithms for calculating volatility skews, normalization of values across contracts, and yield curves derived from market prices. (.Net)
- Delivered software and reporting tools to automate and streamline back-office activities. (Python)
- Designed and implemented infrastructure for collecting and managing contract, trade, position, volatility, and risk management data. (Python, .Net, MS SQL)
- Developed APIs for the firm's option models, enabling access from Orc software for live trading, from Excel and Mathematica for research purposes, and from legacy COM applications. (C++)

CSS — Developer (2000-2002)

Developed real-time risk and analytics software used to manage large equity option portfolios.

- Designed a web-delivered risk management system that allowed live analysis of derivative portfolios. (MS SQL, Javascript, Coldfusion)
- Implemented option pricing models based on research publications and trader input. (C++)
- Collaborated with traders to create dynamic graphs and visualization tools. (.Net, MS SQL)
- Created a database and associated automated processes to collect and store contract specifications, trade and clearing information, volatilities, interest rates and dividends. (.Net, MS SQL)
- Established software and processes for reconciliation of clearing firm data with internal position and trade data. (.Net, MS SQL)

Education

Michigan Technological University, Houghton, MI
B.S., Computer Science