

# Matthew Trumbell

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## Profile

In the past seven years, I have specialized in the development of risk systems for proprietary trading firms. The extensive market knowledge and various technical skills I have gained in this time have led to my success in designing, implementing, and deploying solutions critical to the success of trading firms.

## Education

**Michigan Technological University** (1996-2000) Houghton, MI  
B.S., Computer Science

## Experience

**Chicago Trading Company** Chicago, IL  
Development Manager (2006-Present)

- Managed a team of four developers focused on the development of risk systems
- Created a healthy team environment which fostered collaborative design and team ownership of the code base
- Oversaw the technical and professional growth of the team, performed year end reviews and addressed deficiencies of team members as needed
- Established standards for the team which included extensive testing requirements, consistent project structures and encouraged thorough automation
- Provided a consistent vision of the team's direction and goals
- Worked with traders to define project goals and priorities
- Led a complete redesign of the hiring process for the development organization
- Significantly improved the college recruiting process, resulting in increased college hires and better firm visibility on campuses
- Created and configured the firm's Subversion installation, oversaw the transition of the code base to the new repositories and created an automated backup process for the repositories
- Fully automated the build and release of all software owned by the team
- Implemented software which monitored the firm's trade stream and executed tasks based on the data such as updating position data or communicating market maker protection information to the exchange
- Increased the speed and stability of connections to the firm's pricing engine and wrapped that connectivity in a consistent and extensible API
- Implemented client-side caching of theoretical values, dramatically decreasing the latency of value retrieval by electronic trading systems and increasing the throughput of those systems

**DRW Holdings** Chicago, IL  
Project Manager (2004-2006)

- Managed a group of four developers
- Created a collaborative team environment which fostered innovation and team ownership of the code base
- Established a coding style for the team which mandated comprehensive unit testing and encouraged use of design patterns
- Interacted with traders and clerks to gather requirements for developed tools
- Developed new processes and ideas for tools and reports which improved business workflow
- Developed hiring criteria and interviewing techniques and participated in hiring decisions
- Oversaw the technical and professional growth of the team, performed year end staff reviews, and addressed deficiencies of team members as needed

Developer (2002-2004)

- Developed an ODBC connectivity library for Mathematica using Java and JLink

- Tested proprietary software and handled user support
- Developed a system for making dynamic calls to valuation calculations for market objects and distributing those calculations over multiple computers and processors
- Implemented mathematical routines for the firm, including dynamic skew objects, normalization of values across contracts, yield curve calculations and market object valuation models
- Developed an API to access the market object valuation system from Mathematica for research purposes, from Excel for use by traders, and from COM for legacy application support
- Developed databases for storage of market related data, managing changes to data through time and restricting access to that data
- Created an object oriented system for querying, inserting, updating and deleting data from both the existing firm infrastructure and the new infrastructure being built
- Designed entry and editing tools to allow users to manage infrastructure data
- Developed a live trading system on an Asian market using Excel and various exchange connectivity packages for Excel
- Completed two firm classes on trading and market concepts

**CSS, L.L.C.**

Chicago, IL

Developer (2000-2002)

- Developed a risk management system actively used by traders
- Created a market data database which stored dynamic contract specifications, trade information from both internal and external sources, volatilities, interest rates and dividends
- Implemented models based on research publications
- Imported and reconciled clearing firm data with internal data
- Collaborated with traders to create graphing and visualization tools

**Michigan Technological University, DIPPR Project**

Houghton, MI

Department of Chemical Engineering

Developer (1997-2000)

- Developed a two-tier chemical property reporting and calculation system
- Collaborated with professors and corporate sponsors to gather and understand project requirements and establish timelines
- Designed and implemented chemical property estimation methods in FORTRAN from scientific publications of my managing professors
- Collaborated with corporate sponsors in Houston, TX to share technologies and establish interoperability between development efforts

## Technical Skills

### Languages

- Java (8 years)
- C# (5 years)
- C/C++ (5 years)
- Objective-C (2 years)
- Mathematica (5 years)
- Ruby (2 years)
- Unix shell scripting (bash, awk, sed, etc.) (5 years)

### Databases

- MS-SQL (7 years)
- MySQL (3 years)
- PostgreSQL (1 year)

### Frameworks and APIs

- J2SE/J2EE (6 years)
- .Net (5 years)
- Cocoa (2 years)
- log4net/NUnit (5 years)
- log4j/JUnit (4 years)
- Ruby on Rails (2 years)

### Operating Systems

- Windows (NT, 2000/2003, XP)
- Mac OS (Classic, Mac OS X)
- Linux (Suse)

### Web Technologies

- (X)HTML (10 years)
- XML/Schema (5 years)
- XSL/XSLT (2 years)
- PHP (4 years)
- ColdFusion (2 years)

References available upon request