Kyle D. Kavanagh

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EDUCATION

UNIVERSITY OF MICHIGAN, COLLEGE OF ENGINEERING
B.S.E Computer Science, Cum Laude, Financial Mathematics Minor
May 2014 | Ann Arbor, MI

EXPERIENCE

CME GROUP | Match Engine Development | Head of Performance Engineering, Sr. Software Engineer
July 2014 - Present | Chicago, IL

- Directly responsible for ensuring consistent performance and capacity of CME's low-latency Globex Electronic Trading Platform. Regularly provide scientific and systematic latency profiling, business message optimization, and order entry/market data parity expertise. Led the design of CME's new iLink 3.0 binary message format and assisted in the architecture of new fault tolerance designs.

- Lead a team of five performance engineers responsible for the performance of all non-Globex software applications at CME. Working to establish a culture of performance engineering outside of the Globex team and inline performance directly into other teams' SLDCs.

- Serve as the Globex team's representative to the COO's cross-functional Market Microstructure Working Group, responsible for shaping the direction of CME's electronic markets. Regularly provide insight and analysis on subjects relating to participant behavior (e.g. tick-to-trade, messaging behavior, and microwave activities), as well as CME market dynamics (e.g. customer concentration, correlation analysis, and impacts of latency). The working group is tasked with defining CME's official positions on market structure topics and the team's work is regularly presented to CME's Management Team.

- Head of the Telemetry effort (beta.doyoutelemetry.com) as a part of CME's internal startup incubator to open-source/commercialize the performance management and optimization software originally built for the Matching Engine.

- Designed and led the implementation of the architecture for CME's hybrid cloud infrastructure. The design allows for realtime trading data to be reliably piped to AWS for further processing. The architecture is designed to ensure a simple transition to the cloud for applications currently running in a private data center.

- Leader of the Match Engine's summer intern and entry-level hire programs. Responsible for leading recruiting, interviewing, and hiring of summer interns and entry-level software engineers. Regularly work with HR and division leadership to improve the recruiting and hiring process.

CME GROUP | Match Engine Development | Software Engineering Intern
May 2012 - April 2013, Oct 2013 - May 2014 | Chicago, IL

JP MORGAN CHASE | Treasury & Security Services | Summer Analyst
June 2013 – Aug 2013 | Chicago, IL

KAUFMAN FINANCIAL GROUP | IT Analyst Intern
May 2011 – May 2012 | Farmington Hills, MI

PATENTS

Nov 2016	Granted	Design Patent - Display Screen with Graphical User Interface for Trading System Data
2015-2017	Filed, Pending	12 currently pending applications relating to electronic trading, software and network performance, messaging optimization, and UI/Design.

TECHNOLOGIES

- Java (Unsafe) • R • C++
- Javascript (Backbone.js) • MongoDB
- Corvil • Tibco RV/FTL • Aeron

AWARDS

2014-2017	Excellence Award, CME Group
2013	Dean's List, University of Michigan, College of Engineering
2010	IBM Thomas J. Watson Scholar
2008	Eagle Scout