# KATHERINE XIAOYAN LIN

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#### **EDUCATION**

## **Massachusetts Institute of Technology**

Cambridge, MA

Candidate for M.Eng. Electrical Engineering and Computer Science

Expected June 2011

B.S. Electrical Engineering and Computer Science · GPA 4.9/5.0

June 2010

B.S. Management Science with Concentration in Finance · GPA 5.0/5.0

June 2010

Relevant Coursework: Machine Learning; Design and Analysis of Algorithms; Computer Systems Engineering; Artificial Intelligence; Elements of Software Construction; Communication, Control and Signal Processing; Probabilistic Systems Analysis; Options and Futures; Investments; Finance Theory I and II; Statistics for Applications

**Kearny High School** 

Kearny, NJ

Valedictorian · Weighted GPA 5.39 / 4.0 · SAT 2400

Sep. 2002 - June 2006

#### **EXPERIENCE**

## **Knight Capital Group**

Jersey City, NJ

Quantitative Strategist, Electronic Trading Group

June 2010 – Aug 2010

- Built scaling model that adjusts for seasonal cycles that affected existing volume prediction models
- Designed and implemented graphical application that tracks and calculates trading statistics across different variables in both simulated and live trading
- Implemented scripts that automate daily verification of configuration parameters on European trading platforms; reduced detection and correction time from an average of four days to under five minutes

**Allston Trading** 

Chicago, IL

Algorithmic Trading Intern

Jan. 2010

 Designed production filter tools in Python and Java that classified aberrant pricing moves; targeted research on US Futures Exchanges

Morgan Stanley
Global Capital Markets Analyst, Equity Products Group

New York, NY

• Built financial models for valuation analysis of multiple equity structures and created convertible pitch presentation materials

 Worked with a managing director and analyst on successful \$100 million convertible notes offering and two mandated equity product offerings

## **Computation for Design and Optimization Group**

Cambridge, MA

June 2009 – Aug 2009

Undergraduate Researcher

Jan 2009 – Sept 2009

• Designed job scheduling algorithms in Java to manage patient flow and optimize use of hospital resources and staff in joint project between Sloan School of Management and Massachusetts General Hospital

**Morgan Stanley** 

New York, NY

Technology Analyst

May 2008 – Aug 2008

- Designed and developed Auction Calendar application using Flex and Java. Integrated with Dealogic Event Manager
- Managed development of three other applications: Market Data Reader, News and Media Reader, and Document Manager; designed and documented functional specifications; led sales and technical discussions with ten third party vendors

# SKILLS AND ACTIVITIES

#### **Skills**

Proficient in Java, Perl, LaTeX, Microsoft Excel, PowerPoint, and Word

Knowledgeable in Python, Unix, Matlab, R, Flex, Scheme, Bloomberg; Capital IQ; FactSet

Fluent in English, Mandarin, and Shanghainese; familiar in Spanish

#### Leadership

Eta Kappa Nu (HKN) Engineering Honor Society: Vice President and Undergraduate Tutor

MIT Alumni Association Student Ambassadors: Vice President

MIT Electrical Engineering and Computer Science Department: Associate Advisor

## Awards

Siebel Scholar – Class of 2011; Tau Beta Pi Engineering Honor Society Member; Eta Kappa Nu (HKN) Honor Society Member; National Society of Collegiate Scholars Member; National Merit Scholar; USAA Dr. George A. Stevens Founder's Scholarship Winner (*four awards nationally*); Presidential Volunteer Service Award (*Gold Level*) Recipient