# KAREN ZHOU

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#### **EDUCATION**

#### Massachusetts Institute of Technology

Cambridge, MA

Candidate for Bachelors of Science in Mathematics and in Economics, GPA: 4.8/5.0.

June 2011

Relevant Courses: Microeconomics
Macroeconomics
Finance Theory
Multivariable Calculus; Differential Equations
Futures and Options Markets
Econometrics; Optimization Methods
Corporate Financial Accounting
Multivariable Calculus; Differential Equations
Probability; Statistics; Linear Algebra
Applied Mathematics; Analysis

#### **Desert Mountain High School**

Scottsdale, AZ

National Merit Scholar Finalist, International Baccalaureate Diploma recipient, AP Scholar.

June 2007

SAT I: 2390 (M-800, R-800, W-790); SAT II: Math IIC-800, Chemistry:800, French:730. Top 1% of class, GPA: 4.84/4.0

#### **EXPERIENCE**

Goldman Sachs

New York, NY

Summer Analyst- Credit Risk Specialist

June 2009-August 2009

- Hedge funds: Developed a quantitative model to suggest Internal Credit Ratings for hedge fund counterparts; performed due diligence with new clients and reviewed existing risk parties.
- Equity Derivatives: Ran and created variety of reports including stress test on ED and CFD portfolio; liquidity and concentration report; underutilized bulged limits analysis; unrated counterparts with collateral-at-risk identification.
- Quant: Performed backtesting analysis on potential exposure models for all trade products.

#### Federal Reserve Bank of Boston

Boston, MA

Researcher - "Financial Literacy and Mortgage Outcomes"

September 2008-December 2008

Collected data and performed statistical analysis using STATA comparing financial literacy, impatience, and risk preferences
among homeowners with subprime mortgages against their mortgage characteristics and repayment behaviors.

eBay

San Jose, CA

Summer Intern- Accounting

June 2008-August 2008

- Performed analysis and proposed policy changes in expense reimbursement process and use of company purchasing card.
- Managed transition of expense reimbursement systems, resolving \$600,000 in outstanding expenses.

## **MIT Operations Research Center**

Cambridge, MA

Researcher - "Optimizing Drug Combinations in Cancer Treatment"

January 2008-present

■ Gather data and perform data mining in R to develop new drug combinations that optimize cancer treatment outcomes (i.e. maximize life expectancy and minimize toxicity levels)..

## MIT Department of Architecture

Cambridge, MA

Researcher - "Virtual Environments for the Blind: The Seeing Machine"

October 2007-June 2008

 Created virtual environments to determine the best method to aid the blind in pre-navigation of new settings using a Seeing Machine—a device that projects images onto healthy retinas, allowing certain visually-impaired individuals to see.

## **ACTIVITIES**

#### MIT Society of Women Engineers

Cambridge, MA

Vice President of Corporate Relations, Co-Chair of Career Development

February 2008-present

- Oversee SWE's Career Fair Directors, Career Fair Banquet Chars, and Career Development Chairs.
- Planned career-enhancing workshops and events (Meet the Professionals dinner, Resume Critiques, Biotechnology Panels, Energy Tech Talks, Company Tours) for one of the largest organizations on campus.

## MIT Science and Engineering Business Club

Cambridge, MA

Finance Focus Group Board Member

October 2008-present

Organize presentations and events to educate, prepare, and connect students with the financial services industry.

#### MIT Technology Fair

Cambridge, MA

Corporate Relations Member

October 2007-June 2008

Recruited and acted as liaison to leading technology companies for 2200+ attended tradeshow-style expo.

## Frank Lloyd Wright's Taliesin West

Scottsdale, AZ

Volunteer Tour Guide

2005-2007

• Guided groups of 30+ on 60- and 90-minute tours of architect Frank Lloyd Wright's winter camp.

## SKILLS/INTERESTS

- Languages: French (intermediate), Chinese (conversational, basic reading/writing).
- Technical competencies: STATA, MATLAB (basic), Java (basic), Processing (basic), SketchUp, Microsoft Office applications.
- Interests: Art (graphite, watercolor; display at Scottsdale Museum of Contemporary Art); Travel (lived in Belgium, Hong Kong).