CHAOYI SONG

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EDUCATION

NEW YORK UNIVERSITY New York, NY
The Courant Institute of Mathematical Sciences
MS in Mathematics in Finance (September 2014 – January 2016)

- **Coursework:** Stochastic calculus, object-oriented programming in Java, scientific computing in Python, linear regression models, Monte Carlo simulations, Black-Scholes model, CAPM, Greeks, interest rate models, portfolio optimization, time series

UNIVERSITY OF PENNSYLVANIA Philadelphia, PA
MS in Systems Engineering (September 2012 – May 2014)

- **Coursework:** Convex optimization, simulation modelling & analysis

TSINGHUA UNIVERSITY Beijing, China
BS in Automation (August 2008 – July 2012)

- **Coursework:** Computer language & programming, probability & statistics, ODE, numerical analysis, data structure, stochastic processes

EXPERIENCE

STANDARD & POOR'S RATINGS SERVICES New York, NY
Summer Associate, Quantitative Analytics Research Group (June 2015 – August 2015)

- Conducted financial quality assurance (FQA) testing on rail car securitization, aircraft lease rate decline and fund credit quality rating models
- Designed and developed testing modules and cases in C++ and MATLAB
- Produced model specifications documents and FQA testing reports

UNIVERSITY OF PENNSYLVANIA Philadelphia, PA
Research Assistant, Finance Department (February 2014 – May 2014)

- Conducted research on contract theory with private signals with Prof. John Yiran Zhu
- Modified formulas and computed the optimal contract in discrete and continuous cases
- Developed testing modules in MATLAB to examine the optimal contract

PROJECTS

New York University New York, NY
Option Pricing

- Priced European, Asian and barrier options using Monte Carlo simulation in Java and Python with multiple variance reduction methods

Portfolio Management

- Performed 15-year stock data cleaning with MATLAB using Hampel filter
- Constructed portfolio with mean-variance optimization integrating Black-Litterman model

COMPUTER SKILLS/OTHER

Programming Languages: C++ (1.5 years), Java (0.5 year), Python (0.5 year), MATLAB (3 years)
Software: Microsoft Office, LaTex
Languages: Mandarin (native), English (fluent)
Interests: soccer, tennis, basketball, Texas hold'em