

# Chi (Chelsea) Tang

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## Skills and Credentials

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**Programming:** Python, R, SQL, MATLAB

**Mathematics:** Stochastic Calculus, Computational Methods, Time Series Analysis

**Certifications:** Society of Actuaries (SOA) Financial Mathematics, SOA Probability, Bloomberg Market Concepts

## Education

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**Boston University, Questrom School of Business** Boston, MA

M.S. Mathematical Finance & Financial Technology Expected January 2022

- Coursework: Corporate Risk Management, Fixed Income Securities, Data Analysis and Financial Econometrics, Advanced Machine Learning Applications for Finance, Accounting Risk Management

**University of Connecticut, College of Liberal Arts & Sciences** Storrs, CT

B.A. Mathematics - Actuarial Science [GPA 3.73] May 2020

- Coursework: Risk Management, Advanced Financial Mathematics, Introduction to Mathematical Statistics I, Long-Term Actuarial Mathematics, Big Data Platform, Actuarial Loss Models

## Experience

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**SIGTech** London, UK

Quant Analytics Intern May 2021 - August 2021

- Researched and developed trading strategies in Equity market by constructing various alpha factors from fundamental financial data and utilizing mean-variance asset allocation method to find optimal linear factors weight
- Built and evaluated various asset allocation techniques, including Mean-Variance, and reinforcement learning and Black-Litterman methods
- Evaluated performances of beta-hedged strategies using statistical measurements such as R2 of Fama-MacBeth regression, volatility, MAR ratio, Sharpe Ratio and max draw-down

**Municipal Bureau of Statistic** Changsha, China

Data Scientist Intern June 2017 - August 2017

- Collaborated with members to analyze the daily traffic patterns to reduce congestion during rush hours
- Studied key factors contributing to traffic congestion, provided analysis results and research report with empirical evidence and by developing online surveys to understand the pattern of foot-traffic

## Projects

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**Credit Risk Modeling and Prediction Project (Machine Learning)** April 2021

- Cleaned data, split train & test sets, used PCA for dimension reduction and feature extraction
- Generated new features that are transparent and intuitive compared to existing ones by analyzing clients' repayment abilities and credit history with correlation matrix
- Leveraged Light GBM (LGBM) model to identify important features and constructed SVM prediction model. Evaluated prediction efficacy of prediction models

**Portfolio Optimization Project (sklearn)** November 2020

- Implemented mean-variance model on top 10 holding of XLE SPDR ETFs with Python sklearn and visualized efficient frontier
- Conducted ARIMA model to analyze the AR and MA component of optimized portfolio to predict returns
- Constructed Black-Litterman model portfolio to address the limitations of the Mean-Variance models