# Yunnan Tao

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## Education

**Georgia Institute of Technology** **Online**
*Master of Science in Computer Science(OMSCS)* *From Sep 2021*
- Machine Learning.

**University of Connecticut** **Hartford, CT**
*Master of Science in Financial Mathematics-Financial Risk Management (STEM)* *Dec 2018*
- Risk Measurement, Risk Management, Derivatives Pricing, Python, R, Time Series, Stochastic Processes.

**Tianjin University of Finance and Economics** **Tianjin, China**
*Bachelor of Science in Financial Engineering* *Jun 2017*
- Financial Engineering, Mathematical Finance, Econometrics, Economics, Statistics, Accounting, MATLAB, SAS, R.

## Work Experience

**CryptoAlgoWheel (1688 Capital LLC)** **Boston, MA**
*Quantitative Trader* *Feb 2020 – Present*
- Traded cryptos and futures. Researched and analyzed potential trade opportunities. Developed and maintained data fetcher and data generator system, cleaned tick data with Python and SQL. Developed Trend, Reversal, and Arbitrage Python trading strategies on Backtrader and VNPY. Optimized Strategies and developed an auto-reporter system. Developed trading bot launched on AWS Linux.

**BH Asset Management LLC** **Greenwich, CT**
*Quantitative Analyst and Quantitative Developer* *May 2019 – Feb 2020*
- Cleaned trade and value data with SQL. Built VBA models to calculate and analyze revenue and risk indicators. Built multi-factor analysis to do performance attribution. Optimized allocation for accounts based on risk, return and tax. Built portfolio rebalancing to reduce tracking error and enhance alpha. Built VaR model for each portfolio (stocks, bonds and options) to assess the position risk.

**South Stone Quant Trading Platform (Self-employed)** **Stamford, CT**
*Quantitative Researcher and Quantitative Developer* *Jan 2019 – Feb 2020*
- Built a quant platform for trading and backtesting based on an open-source Python project "VNPY" and deployed on Linux Server. Researched and developed crypto, equity and CTA strategies (Trend, Reversal, and Bumpy) and Algorithm Trading strategies (Iceberg, Market Making, and Arbitrage). Built a website (Vue.js, Flask) to control, monitor and analyze the strategies.

**Ernst & Young Global Consulting Services** **Hartford, CT**
*Graduate Student Researcher-Machine Learning* *Jun 2018 – Nov 2018*
- Collected personal data, selected the determined variables, built a personal physical status score using Machine Learning (including Logistic Regression, SVM, Random Forest, etc.) in R to estimate the probability of having diabetes in order to determine the insurance premium. Designed the interface with R (shiny) and deployed the model on website and Android with Google Cloud Linux.

**Family Asset (Self-employed)** **China**
*Equity Trader* *May 2015 – Present*
- Worked with my father to manage big capital family asset, and invested in Chinese A-share stocks, funds, and bonds. We outperform the market for 4 years, and the return in 2020 is 40% against 12% benchmark.

## Project Experience

**UConn -** *Credit Risk Measurement and Management Project – Leader* *Sep 2018 – Nov 2018*
- Estimated default probabilities by different methods and models like Logit, Merton. Processed data from various sources (Bloomberg, SEC EDGAR, Yahoo Finance) into models, analyzed diagnostic statistics (t-stat, Pseudo R square, LR, P-value).

**UConn -** *Momentum Strategy and Style Analysis Project – Leader* *Jan 2018 – Mar 2018*
- Ran regression on market returns of different countries markets, analyzed model statistics. Ran momentum strategy back testing on different markets and analyzed the difference. Did case study on market anomaly and distinct effectiveness in different markets.

**TJUFE -** *Student Research Training - Emotion Quantitative Research – Leader* *Oct 2015 – Oct 2016*
- Used principal component analysis (PCA) method with MATLAB to construct a sentiment index and get predictability to the stock price. Collected data by surveys and web crawler on Python, constructed and programmed the model, and reported findings in paper.

## Competition and Accomplishments

- First Place, UConn Graduation Project Presentation Winners — Dec 2018
- Advisor, Second Place, Asia and Pacific Mathematical Contest in Modeling — Mar 2017
- Outstanding Winner, "Zhongjin Cup" Futures and Derivatives Knowledge Contest — Jun 2016
- S Prize-Interdisciplinary Contest in Modeling. — Apr 2016
- National 2nd Place & Provincial 1st Place, Mathematical Contest in Modeling — Dec 2015
- 6th Place, 1st "Essence Securities Cup" TJUFE Simulated Stock Trading Contest — Jun 2015
- Provincial 2nd Place, National Olympiad in Informatics in Provinces — Dec 2010

## Skills

Proficient in Python, MATLAB, VBA, R, SQL; Familiar with C++, JavaScript, SAS, SPSS; Familiar with Data Science, Financial Engineering, Machine Learning; Algorithm; Data Structure; Web Crawler; Web Design; Linux; MySQL;
Quantitative Investment; Asset Pricing; Algorithmic Trading; Arbitrage; Bloomberg; Equity, Derivatives, Time Series, Stochastic Processes; Cryptos (From 2013), A-stock (From 2015), Portfolio Management; Optimization; Photography; Cooking.

## Certifications

Candidate of CFA level II and FRM level II; Bloomberg Market Concepts; Fund Qualification Certification; C Programming level II