

Ti Wen (Steven) Chen

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EDUCATION

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| National Taiwan University <i>Master of International Business, especially majoring in Financial Engineering</i> | Sep. 2021 ~ Jun. 2024 <i>Taipei, Taiwan</i> |
| National Taiwan University <i>Bachelor of Chemical Engineering</i> | Sep. 2013 ~ Jun. 2018 <i>Taipei, Taiwan</i> |
| Relevant Topics Finance: Behavioral Finance, Futures and Options, Financial Computation, Financial Engineering, Financial Management, Risk Management Math and Stats: Advanced Statistics, Econometrics, Optimization, Statistical Learning, Stochastic Processes Computer and Data Science: Machine Learning, Deep Learning, Reinforcement Learning Leaderships: Director of Valley22, Manager of Eside Bond Honors: Championship of 2022 Fidelity innovative financial technology challenge | |

SIDE PROJECTS

- Built a Deep Q-Learning agent with a CNN network that analyzes price and volume candle charts to predict future trends. The agent demonstrated a 58% accuracy rate during the testing period, averaged across 10 companies.
- Devised a Foster-Hart optimal momentum portfolio, which yielded a 63% win rate, 1.2 profit loss ratio and 68% more profitable than TSEC weighted index in ten years.
- Acquired knowledge of the Heston pricing model independently and implemented its closed-form solution, as well as the Finite Difference method, utilizing object-oriented programming principles in C++.
- Streamlined the corporate valuation process and financial index calculations using Python, resulting in a 60% reduction in time spent on corporate analysis.

EXPERIENCE

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| Financial Computation <i>Financial Engineering Research</i> | Feb. 2022 ~ Jun. 2022 <i>Taipei, Taiwan</i> |
| <ul style="list-style-type: none">• Learned Black-Scholes, Binomial tree model, Finite difference method and Monte Carlo simulation, etc. options pricing methods.• Applied numerical methods to find implied volatility, modify accuracy of options value and solve partial differential equation. | |
| SinoPac Securities <i>Business Strategies Research Intern</i> | Dec. 2021 ~ Jan. 2022 <i>Taipei, Taiwan</i> |
| <ul style="list-style-type: none">• Conducted top-down analysis on brokerages business strategies in DMA, API and internet trading.• Updated market share, conducted EDA on potential market trend and compared Taiwan and US investment banking spectrum. | |
| Financial Statement Analysis and Corporate Valuation <i>Equity Research</i> | May. 2020 ~ Jul. 2020 <i>Taipei, Taiwan</i> |
| <ul style="list-style-type: none">• Initialized a research report covering Momo.com Inc. (8454.TW) with in-depth research on Taiwan retail market.• Applied DCF, PE ratio and PEG ratio valuation model for an implied share price with 23% upside potential. | |

ACTIVITIES

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| AI CUP House Price Prediction Competition | Sep. 2023 ~ Nov. 2023 |
| <ul style="list-style-type: none">• Collected data on factors affecting house prices, performed data analysis, and determined the factors through feature engineering.• Combined various statistical learning, machine learning, and deep learning models, showing a 8.3% MAPE on the private set. | |
| Fidelity Innovative Financial Technology Challenge | Jan. 2022 ~ Feb. 2022 |
| <ul style="list-style-type: none">• Created a business model which analyzes individual consumption, calculates carbon emission and issues green credit.• Ensured our feasibility with in-depth research on Ant group's business model and the existence of green inflation. | |

ADDITIONAL INFORMATION

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| Mandarin: Native | Hobbies: Basketball |
| English: Proficient | • Lead team ranking 3 rd in NTU Basketball League |