

CHI-SHENG LO, CQF

Tel: (+1) 631-681-1381 Citizenship: Taiwan (ROC) OPT- F1 (Start 06/01/22) Github LinkedIn Email: sigma.vantage@gmail.com

EDUCATION

College of Engineering and Applied Sciences, SUNY at Stony Brook, New York, US (08/2020~05/2022)

MS Applied Mathematics and Statistics (Same course sequence with PhDs)

Project: Portfolio replication (mixed integer linear programming) of TW 50 index using SV-HT distribution as rebalancing signal (The research involves areas in operation research, non-linear state-space, and numerical solution with the Bayesian MCMC)

School of Economics, University of Queensland, St Lucia, QLD, Australia (02/2019~07/2020)

MS Applied Econometrics

Key courses: Big data & machine learning, stat. theory, causal inference, panel data, time series, advanced micro-metrics (non-parametric/semi-parametric/m-estimation/bootstrap/finite mixture), advanced macro-metrics (Bayesian/state-space/TVP-VAR)

EXPERIENCE

Visiting Scholar, Dept. of AMS, Stony Brook University/Statistical Data Analyst, Codersdata, Remote, US (07/2022~Now)

-Focused on bond options CVaR using non-normal distribution at SBU Quant Finance group/DS contractor with Codersdata.

Econometrics Research Assistant (Computable GE & Causal Inference), Academia Sinica, Taipei, Taiwan (04/2018~01/2019)

Project I (Joint) at National Taiwan University, Academia Sinica, and Taiwan Institute of Economic Research

-Worked on food loss quantification in General Equilibrium Model for Taiwanese Economy and Environment (GEMTEE) team.

Project II at Academia Sinica

-Performed STATA programming with micro-econometric modelling such as LPM, logit, threshold regression, GMM, instrumental variable, and quasi-experimental design (Difference-In-Difference) to execute large-scale impact evaluation of educational policies on K-12 students' math/science performance in PISA and TIMSS assessments globally.

Index Options Trader, Volatility Team of Prop. Trading Dept., Masterlink Securities, Taipei, Taiwan (08/2017~12/2017)

-Steered volatility (delta near neutral) trading strategies in both prop trading and market making accounts.

Government Bond Trader, Fixed Income Dept., Waterland Securities (IBF Finc. Holdings), Taipei, Taiwan (06/2014~01/2015)

-Managed the US and Taiwan cash government bonds (through REPO) with daily DVO1 limit of \$3000 USD.

-Wrote views on the central bank guidance/policy, economic trend, and yield curve shift/slope on weekly and monthly basis.

-Achieved number one in PnL among all traders in government bond division during the 3rd and 4th quarters.

Index Arb S&T -> Quant- > Index Options Trader, Prop Trading Dept., SinoPac Futures, Taipei, Taiwan (07/2008~06/2013)

Sales & Trading

-Commented on daily derivatives market in English for our institutional clients (Delta One/Index Arb) based in Hong Kong.

-Executed roll-over, Time Weighted Average Price (TWAP), and iceberg trading on behalf of our foreign institutional clients.

Quantitative Research (algo systematic, alpha, and volatility)

-Wind-tunneled 3D volatility surface by testing the effect of various factors such as the term structure, IV-HV, GARCH, Vol-Of-Vol, higher-ordered Greeks (Volga/Vanna/Ultima), CEV stochastic volatility model on the efficiency of dynamic hedging.

-Developed strategies that involve stress testing, scenario analysis, optimization (Brute-Force and Genetic Algo), robustness check with 3D visual, and backtesting with historical and out-of-sample data for cross validation.

Proprietary Trading (options trading desk)

-Awarded outstanding employee for being runner-up in PnL (The only one under 30 years old among 4 recipients in 2012).

-Applied dynamic hedging on TAIEX & others (Nikkei/Hang Seng/S&P) and controlled Greeks & 1-day 99% VaR within firm limits.

-Managed margin from \$20 to \$300 million NTD in just a few months; Delta (1%) of \$0~\$3 mm NTD, Gamma (1%) of \$0.5~\$2 mm NTD, Vega (1% IV) of \$0.2~\$1 mm NTD and Theta (1-day) of \$0.3~\$1.0 mm NTD on global index options portfolio.

-Generated revenue of \$10 mm NTD on TAIEX index options alone since August 2011; overall profit of \$5 million NTD after summing up both domestic and foreign options portfolio (Achieved annualized return of 9.13% in 22 months).

Finance Specialist (Alternative Military), Public Construction Commission, Taipei, Taiwan (07/2006~11/2007)

-Conducted public project finance research on BOT (Build-Operate-Transfer) and REATS (Real Estate Asset Trusts).

ADDITIONAL

Certification: CQF, CFA Level I passed on the first try, Japanese Language Proficiency Test Level 4

Programming (general/quant modeling/DS/publication): R, Python, MATLAB, Mathematica, C++ (Basic), VBA, SQL, LaTeX

Statistical software (regression/panel data/time series): STATA, SAS, EViews

Terminal and systematic trading: Bloomberg, Reuters, MultiCharts/TradeStation (Pascal based objected oriented language)

Computational projects: DP optimal stopping (Least Square MC), ML (RL/KNN/Boosting), Copula (semi-parametric)

Econ projects: US fiscal contraction (CGE), Brexit shocks (CGE), energy transmission (SVAR), model selection (Bayesian method)

Other degrees: BSM Finance (Tulane), MSc Finance (ICMA Centre, UK), MA Economics (Australian National University)