CHI-SHENG LO, CQF

T: (+852) 53990584 Citizenship: Taiwan (ROC) https://github.com/ergodic-metrika E: sigma.vantage@gmail.com

EDUCATION

State University of New York at Stony Brook — **Long Island, NY**
MS Applied Mathematics and Statistics — **Aug 2020 – May 2022**
Project: Index enhancement of TW 50 under multiple constraints using SV with heavy tailed distribution as rebalancing signal

University of Queensland — **QLD, Australia**
MS Applied Econometrics — **Feb 2019 – Jul 2020**
Key courses: Big data & machine learning, math stat., causal inference, panel data, time series, advanced micro-metrics (non-parametric/semi-parametric/m-estimation/bootstrap), advanced macro-metrics (Bayesian/state-space/TVP-VAR/stochastic vol.)

PROFESSIONAL EXPERIENCE

Ernst & Young — **Quarry Bay, Hong Kong**
Senior Consultant — **May 2023 – Now**
-Validates FX down-and-out barrier options pricing models with LSM Monte Carlo and historical simulations in Python
-Builds Hull-White SDE to project SOFR based on its volatility and mean reverting speed using AR(p), half-life & MLE and to calibrate its trinomial term structure with the Levenberg-Marquardt, Simulated Annealing, and Newton Raphson algos
-Remodels finite differences and stochastic volatility options model with MC and optimal inputs generation
-Crafts pricing engine in Python for accumulator and decumulator, a type of exotic barrier equity structured product derivatives

Citta Capital — **Palo Alto, CA**
Linear Systematic Algo Quantitative Analyst (Remote Side Job) — **Mar 2023 – Now**
-Designs automated strategies with a mix of technical indicators and ML algos across US equity, crypto, bond & energy on Python and Julia for prototype and optimization as well as on MultiCharts and TradingView for robustness and execution

State University of New York at Stony Brook — **Long Island, NY**
Visiting Scholar at the Department of Applied Mathematics and Statistics — **Jul 2022 – Sep 2022**
-Modeled rate dynamics and its derivatives portfolio CVaR under Director Stan Uryasev's quant finance research group

Cruize Finance — **Pune, India**
Quantitative Researcher (Remote Part-Time) — **Jun 2022 – Jun 2022**
-Co-researched with IT developers on designing the automated market making (AMM) strategy and protocol of crypto options

Academia Sinica — **Taipei, Taiwan**
Econometric Modeler (Institute of Economics & IEAS) — **Apr 2018 – Jan 2019**
-Performed STATA programming with micro-econometric modeling 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

Masterlink Securities — **Taipei, Taiwan**
Index Options Trader — **Aug 2017 – Dec 2017**
-Steered volatility (delta near neutral) trading strategies in both prop trading and market making

Waterland Securities — **Taipei, Taiwan**
Government Bond Trader — **Jun 2014 – Jan 2015**
-Managed the US and Taiwan ten-year cash treasury bonds (through REPO) with daily DVO1 limit of $3000 USD
-Achieved number one in PnL among all traders in government bond division during the 3rd and 4th quarters

SinoPac Futures — **Taipei, Taiwan**
Index Arbitrage Sales &Trading -> Quant- > Index Options Trader — **Jul 2008 – Jun 2013**
-Awarded outstanding employee for being runner-up in PnL among colleagues at the proprietary trading department
-Applied dynamic hedging mainly on TAIEX and others (Nikkei/Mini-SP/Hang Seng/SGX-TW) with max managed AUM at $10 million USD by Standard Portfolio Analysis of Risk (SPAN)
-Wind-tunneled the volatility surface by examining the non-linear dynamics of volatility term structure and mispricing
-Estimated IV-HV, GARCH, higher-ordered Greeks, CEV stochastic volatility model for the efficiency of dynamic hedging
-Developed nonstationary asset & co-integrating stationary pair strategies that involve scenario analysis, optimization (Brute-Force & Genetic Algo), robustness check, and backtesting with historical and out-of-sample data for cross-validation

ADDITIONAL

Relative Index Arbitrage: Over 30% return, Sharpe (Annualized) > 22 (1.35), Max DD of 10%; PnL result can be viewed here
Certification/Other degrees: CQF, CFA Level I passed, JLPT Level 4, Tulane BSM, ICMA Centre Msc ISIB, ANU MA Econ
Computing: Python, Julia , MATLAB, R, LaTex, VBA, STATA, SAS, EViews, Gurobi, EL, Pine Script, Numerix, Bloomberg, Reuters