HUA (HANA) JING

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EDUCATION

Expected 12/23 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance

- ***Coursework:*** OOP (Java, Python), regressions & time series, portfolio theory, Black-Scholes, Monte Carlo, stochastic calculus, short rate and fx models, scientific computing, energy derivatives, MBS, XVA, alternative data

08/18 - 05/22 **UNIVERSITY OF COLORADO, DENVER** Beijing, China/Denver, CO
B.S. in Mathematics, B.A. in Economics, Minor in Data Sciences

- ***Coursework:*** ML, regression, probability, real analysis, ODE, linear algebra, econometrics
- ***Honors/Awards:*** Magna Cum Laude, Dean's List (7 semesters)
- ***Joint Program with China Agricultural University***

EXPERIENCE

05/30 - Present **NUMERIX** New York, NY
Financial Engineer Intern (Python, Excel)

- Calibrated models with market data and wrote payoff scripts to price trades (e.g., barrier options, cliquets, corridors, swaps, swaptions) with proprietary software interfaces in Excel and Python
- Validated software's calibration, pricing, Greeks, and IRR models with market conventions
- Identified potential issues; wrote thorough reports and suggestions for software development team, enabling them to improve accuracy
- Applied academic and white papers' methods: log contract replication for variance swaps, Brownian Bridge for barrier options, American Monte Carlo for options

11/21 - 01/22 **HUATAI SECURITIES (Python, R)** Remote, China
Quantitative Research Intern

- Conducted time series analysis; projected crude oil prices for next quarter by aggregating data (e.g., US Dollar Index, inflation expectation, crude oil production)
- Used Monte Carlo to implement GBM stochastic pricing model, and simulated returns of snowball exotic options after identifying their payoff structures

PROJECTS

BERYL CONSULTING New York, NY
03/23 – Present **Alternative Data Research with NLP and Machine Learning (Python, AWS, Power BI)**

- Implemented spiders with Scrapy and acquired text data from public sources; built cleaning, preprocessing, and vectorizing pipeline; used LDA to find most popular VC topics
- Modeled clients' alternative data (e.g., job posts, ESG) and market data; experimented with hypothesis test and trading signal generation, and created data storytelling report with Power BI

NYU COURANT New York, NY
04/25 – 05/17 **Integration of CAPM and Risk-Neutral Pricing of Commodity (Python)**

- Replicated numerical method from "Commodity and Asset Pricing Models: An Integration" paper (Schwartz); implemented integration of CAPM and risk-neutral method to set restrictions
- Optimized pricing model with Kalman Filter, with market data and survey data from other papers

04/25 – 05/13 **Model FX Volatility Using Market Strangle (Python)**

- Used risk reversal and market strangle quotes; calibrated SABR with SciPy optimizations
- Reconstructed vol surface; built piecewise flat trading time clock for time interpolation

02/23 – 03/20 **Trading WTI Futures (Python, Excel)**

- Implemented factor model residuals momentum rolling strategies on WTI Futures; selected factors yearly using Lasso regression from 17 macro and oil-specific factors
- Hedged using Carry; optimized reaction function; single future Sharpe ratio: 1.05, MDD: 17.8%

COMPUTATIONAL SKILLS / OTHER

Technical Skills: Python, Java, R, SQL, Excel, AWS, Power BI, LaTeX, Bloomberg Terminal, GIS, Stata
Languages: English (fluent), Mandarin (native)
Other: Undergraduate Development Economics Research Assistant; Volunteer Leader, Veterans Hospital in Beijing