Zihan (Hanna) Wang

(929) 266-0816 | zw2517@columbia.edu

Education

Columbia University *New York, NY*
Master of Science in Financial Engineering (Aug 2018 – May 2020) GPA: 3.8/4.0
Central University of Finance and Economics *Beijing, CN*
Bachelor of Economics in Mathematical Economics & Finance (Sep 2013 – Jun 2017) GPA 3.7/4.0

Skills

Programming languages: Python, R, SQL, R shiny, Stata, SPSS, Git, Bloomberg
Coursework: Fixed Income, Derivatives Pricing, Time Series, Deep Learning

Professional Experience

Bracebridge Capital LLC *Boston, MA*
Valuation Analyst (Nov 2020 – current)

- Evaluate the market prices used in securitized benchmark indices and other fixed income products and services on a daily, weekly and monthly basis. Analyze internally sourced pricing as well as externally sourced pricing for accuracy
- Research and resolve pricing discrepancies through modeling and analysis and working with third party vendors
- Work with Valuation Manager and other analysts to enhance pricing models. Conduct tolerance testing of results
- Assist with the preparation of documentation for month-end reporting and regulatory audits

Societe Generale Corporate and Investment Banking *New York, NY*
Product Control Intern (Aug 2020 – Nov 2020)

- Produced completeness report on product level including **interest rate swap, option, FX forward, future, repo/reverse repo, prime**
- Implemented daily certification on counterparties (Financial institution, Hedge Fund, Corporate and Sovereign) with different pricers (Monte Carlo, DEC, with/without netting agreement) for all kinds of **OTC exotic products**
- Investigated bi-weekly overshoot issues with salesperson and trader including data quality, block trading etc
- Automated weekly MAT report generating and visualized analysis using Power BI and dash, HTML by python

SCOR Reinsurance *New York, NY*
Quant Risk Intern (June 2019 – Dec 2019)

- Developed retrocession **portfolio optimization algorithm** using gradient descent
- Independently produced interactive SCOR US dashboard (**web application**) of **capital modeling, credit risk, interest rate risk** and exposure analysis under scenario analytic with dash, HTML and plotly. Dashboard put into production as internal website. Presentation and achievements highly appraised by CRO of North America, Paris and Zurich
- Developed forecast algorithm to predict capital loss after discount and tax using piecewise **regression**
- Transferred calculation algorithm of VaR and TVaR from R to **python**, accelerating process from 2 min to 30 seconds. Utilized **SQL** and **Oracle** database to extract text data for analysis

Projects

Derivatives Pricing Projects (Jan 2020 – Mar 2020) *New York, NY*

- Calculated Greeks of Equity Options including delta, gamma, vega, theta and implied volatility using Black-Scholes Model and Monte Carlo Simulation. Compared with data on **Bloomberg**
- Priced American Option using partial differential equation (**PDE**) and simulation with/without exercise boundary.
- Updated projects using **Git** on https://zihan23.github.io