# WEI (OLIVIA) WANG

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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:* Black-Scholes, Fama-French, Hull-White model, object-oriented programming (Java), statistical inference, algorithmic trading, deep learning, Monte Carlo simulation, portfolio optimization, penalized regression, Ito's lemma, risk-neutral valuation

**09/18 - 06/22**  **THE CHINESE UNIVERSITY OF HONG KONG, SHENZHEN**         Shenzhen, China
**B.B.A. in Financial Engineering**
- *Coursework:* linear algebra, ODEs, calculus, probability and statistics, time series, stochastic process, Python, discrete mathematics, data analysis, econometrics, microeconomics, finance
- *Honors/Awards:* Dean's List Honor (2019, 2020); Academic Performance Scholarship 2019-2020

**10/20 - 06/21**  **UNIVERSITY OF OXFORD**                                         Oxford, UK
**Visiting Program**
- *Coursework:* probability measures, mathematical models of financial derivatives, statistical machine learning, game theory, macroeconomics

## EXPERIENCE

**11/21 - 12/21**  **UBS**                                              Beijing, China (remote)
**Quantitative Analyst Assistant (Python)**
- Coded pricing formulas using different methodologies (e.g., Black Scholes, Bachelier)
- Generated European and American options pricing formulas
- Found implied volatility of each pricing formula; drew volatility smile curve and Greeks graph of each option

**10/21 - 11/21**  **GUANGFA SECURITIES CO., LTD**                  Guangzhou, China (remote)
**Quantitative Analyst Assistant**
- Researched quantitative finance trading in China and characteristics of each strategy
- Identified several features with strong past performance; built models for feature combinations using data and fundamental factors

## PROJECTS

**09/21 - 10/21**  **NEW YORK UNIVERSITY**                           New York, NY (remote)
**Valuation of Google's Snowball Option**
- Built pricing model and created price expressions for variety of snowball option scenarios
- Simulated 1,000 paths for Google's stock price; calculated snowball option price for each one; obtained average to determine snowball option price (using Monte Carlo simulation)
- Presented sensitivity analysis about relationships among knock-out price, knock-in price, sigma, and option price

**12/19 - 05/20**  **THE CHINESE UNIVERSITY OF HONG KONG, SHENZHEN**         Shenzhen, China
**Econometrics Model: Influence of Violent Films on Violent Behaviors (STATA)**
- Built econometrics model that determined causal effect of different levels of violence in movies on real-world assaults; used movie attendance in 1 week before and after as instrument variables
- Calculated model parameters; tested multicollinearity, validity of instrument variables, and autocorrelation of error terms
- Concluded that moderately violent movies decrease number of assaults; articulated argument for that and policy recommendations in paper and presentation

## COMPUTATIONAL SKILLS / OTHER

*Programming Languages:* Python, Java, R, STATA, Julia
*Languages:* English (fluent); Mandarin (native)