Ivy Suiwen Wu

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EDUCATION

Cornell University, New York, NY

Master of Engineering in Financial Engineering, **GPA: 4.065/4.3** **Dec 2018**

- Andrew Schultz, Jr. Award Recipient

Bachelor of Science Honors in Operations Research and Information Engineering, **GPA: 4.060/4.3** **Aug 2014 – May 2017**

- Minor in Applied Math, Dean's List: All semesters, Allan H. Mogensen Award, Summa Cum Laude, **Major GPA: 4.20**

Selected Coursework: Fixed-Income Securities, Financial Engineering with Stochastic Calculus, Advanced Investment Strategies, Optimization Modeling in Finance, Probability, Simulation Modeling and Analysis, Derivatives

PROFESSIONAL EXPERIENCE

Citi, Rates Structuring and Solutions Associate, New York **Mar 2019 – Present**

- Specialize in bespoke rates and currencies solutions for Latin America institutional and corporate clients.
- Facilitate long-term hard currency financing transactions for EM clients at competitive rates
- Structure liability management solutions for corporate clients to reduce their long-dated exposure to hard currency
- Design macro hedges targeting accounting, OCI, margining and liquidity issues
- Specialize in SPV transactions such as repack notes with supernational guarantees, structured placement and securitizations.
- Proficient in pricing interest rate derivatives, credit default swaps and various derivative valuation adjustments
- Familiar with repo and derivative netting and enforceability opinions in Latam jurisdictions

Citigroup Quantitative Analysis Program, Summer Analyst, New York **Jun 2018 – Aug 2018**

- Constructed statistical models and machine learning tools using Gaussian Kalman Filter, ARIMA model and logistic regression to facilitate jump outliers and stale data detection process
- Applied the tools on more than 5000 time series data from foreign exchange and significantly improved data quality

Citigroup Global Markets Asia Ltd, Summer Analyst, Hong Kong **Jun 2017 – Aug 2017**

- Rotated through G10 Rates Structuring and Private Client Solutions Asia for 10 weeks in Markets and Securities Services
- Created a term sheet generator for CMS spread linked note and a price checker for US orders using Excel VBA

PROJECTS

Optimal Risk Management in Trading, *Cornell University,* New York **Sept 2018 – Dec 2018**

- Constructed dynamic programming model to analytically solve the optimal quoting policy for single-asset and two-asset trading processes with various risk and capital constraints
- Applied reinforcement learning algorithms, i.e. Deep Q Learning, Deep Deterministic Policy Gradient and Continuous Q Learning, to extend the original problem to multiple assets with the covariance matrix constructed from real data

Portfolio Optimization with Factor Covariance Matrix, *Cornell University,* Ithaca, NY **Jan 2018 – May 2018**

- Applied various shrinkage techniques to the covariance matrices constructed from historical returns and factor models to resolve singularity issue and to improve the quality of the estimated covariance matrices
- Performed Markowitz portfolio optimization with cleaned covariances and back-tested the portfolio performance with data starting from 2010; the portfolio using the factor model covariance matrix outperformed its counterpart by 160%

Currency Carry Trade Project, *Cornell University*, Ithaca, NY **Sept 2017 – Dec 2017**

- Proposed currency carry trade idea based on a regression model: a currency pair is added to the portfolio if more than half of the independent variables demonstrate strong positive signals and the portfolio is rebalanced each month
- Back-tested the portfolio with data from 2008 and the constructed portfolio outperformed equally weighted portfolio and the individual currency pair

TECHNICAL SKILLS

Technical: Python, Java, SQL, VBA, R, Matlab, Swift

Language: English, Mandarin, French (working progress)

ACTIVITIES/INTERESTS

- Traveling, hiking, collecting postcards and stamps, Star Wars, squash
- Learn new languages