YONGCI (LYDIA) LU

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Education

Carnegie Mellon University, Tepper School of Business — Pittsburgh, PA
Master of Science in Computational Finance; GPA: 4.01/4.33 — *Aug 2010 – Dec 2011*

- **Honors**: MSCF Merit Scholarship recipient, Academic Excellence in Mathematics Award

Nanjing University — Nanjing, China
Bachelor of Science in Mathematics; GPA: 3.65/4.0 — *Sep 2006 – June 2010*

- **Study Abroad**: American University, Washington, D.C., Kogod School of Business (12/09) GPA: 4.0/4.0

Experience

Bank of America — New York, NY
Global Quantitative Strategies, Counterparty Portfolio Management — *Sep 2013 - Present*

- **Pricing Analytics**: Supported state-of-the-art pricing application for counterparty credit adjustment (CVA), funding value adjustment (FVA) and capital value adjustment (KVA) of OTC derivatives across global market.
- **Risk Management**: Deployed an integrated risk management system that covers risk transformation, aggregation and attribution, PnL predicts and explains to provide a comprehensive portfolio picture for optimal hedging and trade selections purpose.
- **Model Enhancement**: Enriched C++ pricing framework to support forward collateral calculation under multiple variation margin and initial margin accounts and with non-standard CSA such as rating-based CSA and forward starting CSA. Implemented a simulation based kernel method to estimate forward UMR margin.
- **Model Development**: Developed a rating-based default probability model for counterparty with no tradable CDS to address urgent regulatory MRIA. Model covers over 10,000 portfolios and accounts for half of the total CVA of banks' trading book. Presented model idea and conveyed basic model assumption to Fed examiner and worked collaboratively with business, technology, model validation and internal audit to ensure that monitoring process is in place for a proper model behavior under extreme market environment.
- **Capital Optimization**: Built infrastructure to produce forward capital valuation for OTC derivatives, including spot and forward calculation of B3A, B3S and SLE to assess capital consumption and quantify ROC over time. Reduced capital charge from potential future exposure (PFE) through trade compression and novation.
- **Operation Excellence**: Envisioned and propelled an integrated analytic solution to streamline cross-function workflow, improve operational efficiency, enhance model performance thus shorten the model deployment cycle. Integrated analytic tool with tech infrastructure for prod-parallel testing to streamline the release approval process. Customized metrics to evaluate model consistency with line of business pricing models. Visualized large-scale data through python interactive graphic tool to speed up error detection process. Automated daily and quarterly reports to reduce human involvement and workload for ongoing regulatory requests.
- **LIBOR Transition**: Facilitated systemwide upgrade from LIBOR discounting to OIS discounting for XVA calculation in preparation of the SOFR migration. Lead effort of yield curve template migration to achieve configurable risk instruments specification under different curve constructions while maintaining a consistent PV.

Citigroup — New York, NY
FX Short-Term Interest Rate Trading, Desk Quant — *Aug 2012 - Sep 2013*

- **Pricing Analytics**: Supported pricing analytics for US G10 FX Swap and Cross Currency trading business.
- **Electronic Trading**: Deployed dynamic bid-ask model based on trading volume and current inventory. Conducted client differentiation analysis for optimal quoting strategy.
- **AMM**: Automated market making for EUR ON and TN FX swap.

Interest Rates Quant, Summer Intern — *May 2011 - Aug 2011*

- **PCA Analysis**: Conducted Principle Component Regression between IR curve and vol surface.
- **Trading Strategy**: Enhanced short Vol strategy using cross market signals.

Skills

Programming: C++, Python, Excel VBA, MATLAB, SQL, R, KDB, Latex

Certification and License: Series 7 & 63, Deep Learning Specialization