LEPENG (JOY) WU

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EDUCATION

Harris School of Public Policy, University of Chicago — Chicago, IL, USA
Master of Public Policy, Specialization in Finance & Data Analytics (STEM-Designated) — *June 2025 (Expected)*

University of International Business and Economics — Beijing, China
Bachelor of Economics, Concentration in Quantitative Economics — *June 2023*

ACCA Diploma in Accounting and Business — UK
RQF Level 4 (Financial Accounting, Taxation, Business Law and Performance Management) — *June 2023*

Relevant Coursework: Machine Learning, Time Series, Casual Inference, Program Evaluation, Statistics for Data Analysis

QUANTITATIVE ANALYTICS

U.S. Treasury Yield Curve, University of Chicago — Chicago, IL, USA
Research Assistant, Dr. Thomas Coleman — *January 2024 - Now*

- **Contributed to an empirical study updating Coleman, Ibbotson, and Fisher's research**, improving U.S. Treasury forward curve estimation and market dynamics analysis through **Git-managed workflows, web scraping, and data preprocessing**.
- Designed and optimized hybrid **Python-Fortran** modeling pipelines, enabling efficient cross-language computation for large-scale financial simulations, integrating **Portfolioer and Timer** for performance tuning.
- Developed and implemented four distinct **curve fitting algorithms**, leveraging **numerical optimization, option modeling, and tax-adjusted spreads** to enhance model accuracy and reproducibility.

University of International Business and Economics — Beijing, China
Quantitative Research Fellow — *April 2021 - June 2023*

- Applied **quantile regression and matrix decomposition** to analyze global value chains' impact on carbon emissions, integrating large-scale datasets and statistical modeling to support sustainability policies.
- Conducted a 15-year longitudinal study on patent citation trends, using **multi-regional time-series analysis** and **interactive visualizations (Shiny, R)** to identify disparities in IP financing.

DATA-DRIVEN INVESTMENT & APPLIED ANALYTICS

Municipal Finance Lab, University of Chicago — Chicago, IL, USA
Policy Consultant — *January 2025 - Now*

- Optimized pension fund asset allocation and consolidation using **visualization, quantitative risk analysis and investment simulations**, reducing costs and improving long-term stability.
- Built **predictive models to evaluate debt structures and volatility**, leveraging Python, SQL, and statistical analysis for municipal finance policy.
- Translated complex **financial data** into actionable insights for **policymakers and institutional clients**, enhancing fiscal sustainability strategies.

CFA Challenge, Gold Prize & Investment Intern, Guomin Pension & Insurance Co. Ltd. — Beijing, China
Quantitative Research Analyst - Asset Management — *May 2024 - August 2024*

- Engineered a data-driven investment strategy using **Monte Carlo simulations, Python-based machine learning, and backtesting** to optimize portfolio efficiency.
- Built **quantitative models** for REITs (Real Estate Trusts) valuation, incorporating **ESG, hydropower, and energy analysis**, while applying **cash flow and credit risk modeling** to assess liquidity, duration, and risk-adjusted returns for asset allocation.
- Selected from **3,659** candidates and speak at a **government press conference** and present fixed income insights to institutional investors, showcasing industry expertise and cross-cultural communication.

Intern, Baoxun Rongtong Technology — Beijing and Chengdu, China
Product Analyst – Cloud Data & Analytics — *April 2022 - July 2022*

- Optimized **large-scale cloud-integrated databases**, designing **scalable relational schemas** for 8,000+ livestream and e-commerce transactions. Developed **automated ETL workflows** using Python to improve real-time market insights and operational efficiency.
- **Implemented SAP S/4HANA data migration strategies**, streamlining data pipelines for real-time livestock and vaccine tracking.
- Conducted quantitative analysis on futures market data, generating predictive insights to optimize **supply chain** decisions.

SKILLS & CERTIFICATES

- Technical Skills: Python, Github, R, Fortran, C++, Stata, SPSS, SAP S/4 HANA
- Languages: Chinese (Native), English (Fluent), and French (Intermediate)
- Association: China Golf Association (Referee), IML Walking Association (China Delegate)