XINQIAO (RINSTER) TONG

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EDUCATION

Expected 12/24	**NEW YORK UNIVERSITY**	New York, NY

The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- *Coursework:* financial computing in Python, stochastic calculus, derivatives valuation, data-driven modeling, portfolio optimization and risk

09/19 - 06/23	**XI'AN JIAOTONG - LIVERPOOL UNIVERSITY**	Suzhou, China

B.S. in Applied Mathematics with Honors (First Class)
- Ranked #1/144; won Best Overall Academic Performance Award
- National Scholarship, Provincial Outstanding Student
- *Coursework:* analysis, probability & statistics, ODE & PDE, mathematical modeling, operational research, numerical analysis, risk management, Markov chain, optimization

09/19 - 06/23	**UNIVERSITY OF LIVERPOOL (DUAL DEGREE)**	
	B.S. in Applied Mathematics with Honors (First Class)	Liverpool, UK

EXPERIENCE

06/22 - 09/22	**RUISHENG INVESTMENT**	Qingdao, China

Quantitative Research Intern (Python, MATLAB)
- Designed sell put strategy based on VIX, Greeks and return-risk ratio, attaining 8.7% annual return, 3.5% maximum drawdown and 90.3% winning rate
- Analyzed hedging with ratio and calendar spread based on support levels, with 2:1 ratio spread achieving 8.9% annual return, 3.0% maximum drawdown and 83.9% winning rate
- Selected combinations of moving averages and commodities at daily level for CTA strategy, which realized 15.7% annual return and 4.9% maximum drawdown
- Performed grid trades on 3 individual stocks (grid width 1%) after training

06/22 - 11/22	**PURDUE UNIVERSITY**	Remote

Research Assistant (Python)
- Tested sparsified DNN based on Bayesian analysis to recognize pivotal factors
- Implemented LassoNet to select factors; refitted DNN to evaluate significance of chosen factors based on portfolio's monthly return and Sharpe ratio
- Discovered that top 5 factors explained 90% of return generated by all 63 factors

PROJECTS

09/22 - 06/23	**XI'AN JIAOTONG-LIVERPOOL UNIVERSITY**	Suzhou, China

Kou's Jump Diffusion Model for Option Pricing (MATLAB)
- Derived pricing formula step by step and verified leptokurtic feature of returns
- Performed parameter estimation to calibrate Black-Scholes' and Kou's models against real-world data of options on S&P 500 via fixing time to maturity and fixing option contract
- Reduced prediction errors by 50.3%, on average, under Kou's model when fixing option contract

04/21 - 09/21	**XI'AN JIAOTONG-LIVERPOOL UNIVERSITY**	Suzhou, China

Subsurface Flow Simulation via Machine Learning (Python)
- Implemented physics-informed neural network (PINN) to solve Laplacian equation with Dirichlet boundary conditions numerically
- Investigated scenarios with regular blocks and irregular cracks, in which Laplacian coefficients were heterogeneous within computational domain

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, MATLAB, SQL, Java
Languages: English (fluent), Mandarin (native)
Award: Meritorious Winner in Interdisciplinary Contest in Modeling in 2021