KAILAI CHEN

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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:*** Stochastic calculus, Black-Scholes, Fama-French, algorithmic trading and quantitative strategies, risk & portfolio management, statistical arbitrage, Hull-White model, penalized regression, decision trees, data science, cryptocurrency and blockchains

09/18 - 06/22 **UNIVERSITY OF LEEDS** Leeds, UK
B.S. in Computer Science
- ***Coursework:*** calculus, linear algebra, probability, procedural programming, machine learning, object oriented programming, artificial intelligence, data mining, algorithms and data structures, software engineering, parallel computation, combinatorial optimization
- ***Honors/Awards:*** Second-Class Honors, Upper Division

EXPERIENCE

09/22 - 12/22 **WORLDQUANT BRAIN**
Global Alphathon 2022 (Quant Competition)
- Attained Gold level in WorldQuant Challenge
- Ranked in top 5% for Stage 1, and won 3rd place in US for Stage 2
- Identified 20 high-quality alphas, with Sharpe over 1.25 (3 of these alphas were higher than 4); turnover was within 70%

09/20 - 12/20 **CHINESE ACADEMY OF SCIENCES** Beijing, China
Institute of Computing Technology
Machine Learning Algorithms Researcher Intern
- Analyzed online transaction data through machine learning algorithms to research consumer behavior and preferences of different user groups
- Processed 500k+ sets of original online transaction data through ETL and PCA
- Used K-means algorithm to cluster data; visualized data set
- Published paper 'On a Machine Learning Based Analysis of Online Transaction' for 2022 3rd International Conference on Machine Learning and Computer Application

PROJECTS

01/20 - 03/20 **FUDAN UNIVERSITY** Shanghai, China
Face Recognition Based on Deep Learning and Pattern Recognition
- Used Python to achieve PCA algorithm and LBP feature algorithm
- Combined Haar-like feature extraction algorithm and Adaboost to train feature classifier
- Built convolutional neural network and trained face recognition model; improved accuracy of face recognition from 78% to 86%

02/22 - 05/22 **UNIVERSITY OF LEEDS** Leeds, UK
Convolutional Neural Network Model for Video Analytics in Edge Computing
- Detected images in which background had changed, using Edge AutoTuner framework
- Used VIRAT Video Dataset and chose 10 videos from as datasets and trained them using model
- Modified structures and parameters of edge model by changing neural network
- Optimized algorithms by adjusting structure of neural networks; added residual networks to compensate for errors

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, Java
Interest: Texas Hold'em Poker (semi-professional)
Languages: English (fluent), Mandarin (native)