NUO LEI

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EDUCATION

New York University, Center for Data Science**,** New York, United States *Expected May 2024*

- *Master of Science in Data Science* *GPA: Pending*
- **Expected Coursework**: Machine Learning, Deep Learning, Natural Language Processing, Database Systems

University of International Business and Economics, Beijing, China *September 2018 - July 2022*

- *B.A. in Financial Mathematics* *GPA: 3.8/4.0*
- **Relevant Coursework**: Linear Algebra, Probability and Statistics, Time Series Analysis, Python Big Data Analysis, Data Mining and Statistical Learning, Optimization, Mathematical Modeling, Regression Analysis

TECHNICAL SKILLS

- **Programming**: Python (Pandas, NumPy, scikit-learn), SQL, R, C++, Java, MATLAB, SAS, Shell scripting
- **Framework & tools**: Git, Bash, Excel, SPSS, Docker, A/B Testing, Hadoop, HTML, CSS, JavaScript

INTERNSHIP EXPERIENCE

Harvest Fund Beijing, China

Research Assistant - AI Lab *April 2021- July 2021*

- Researched on artificial-intelligence-based financial product of other funds with competitive relationships
- Used Python and MySQL to calculate Piotroski F-Score and help with Hong Kong stock investment decision
- Applied K-Means and DBSCAN models to partition stocks into different clusters, further increased the interpretability of the team's investment products
- Employed quadratic programming in Python to optimize funds' position by minimizing the L_2 norm between net asset value and stocks' market value, achieved 2% mean absolute error

State Information Center Beijing, China

Research Assistant - Postdoctoral Workstation *July 2020-March 2021*

- Re-implemented Machine Learning algorithms in literature related to international investment matching
- Used multi-threading programming in Python to quickly collect unstructured research data from UN' website
- Built data visualization pipelines with Python (Pyecharts, Pyplot) displaying models' results automatically

PROJECT EXPERIENCES

Stock Price Prediction Based on Natural Language Processing Published on *Complexity* (Link)

Advised by Prof. Xiaobin Tang *November 2020-November 2021*

- Proposed innovative finetune strategy to generate keywords with better interpretability and predictability of CSI 300 Stock price from original seed words' Wikipedia
- Finetuned BERT and NEZHA in Python (TensorFlow) based on more than 500,000 sentences in the training set from Chinese GLUE and obtained 90.06% accuracy on over 19,000 sentences in the test set
- Used Pearson correlation coefficient and lagging terms to remove noises in data and select predictive variables
- Enhanced LSTM prediction performance with 28.20% RMSE decrease via new keywords' Google Trends

HONORS & AWARDS

- National Scholarship, China (Top 1%, 2020)
- University Outstanding Student, University of International Business and Economics (Top 5%, 2020)
- First Prize, Contemporary Undergraduate Mathematical Contest in Modeling (Top 1%, 2020)
- First Prize, The Asia and Pacific Mathematical Contest in Modeling (Top 5%, 2019)
- First Prize, The 11th Chinese Mathematics Competitions (Top 7%, 2019)

ACTIVITIES

- **Chairperson**: Quant Factory Student Investment Club, University of International Business and Economics