

# XINYI LIU

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**SUMMARY** Working on data science, machine learning and computer engineering

**SKILLS** NLP, RL, Python, Bash, Docker, SQL, R, C++, PyTorch, Tensorflow, Tableau

## EDUCATION

### University of Rochester, 8/19-5/24

- *Ph.D. Computer Information Systems (3.84/4.0)*

### New York University (NYU), 9/17-5/19

- *M.S. Management and Systems, Database Technologies w. Distinction (3.95/4.0)*

### Central University of Finance and Economics, 9/13-6/17

- *B.S. International Finance (3.69/4.0)*

## WORK EXPERIENCE

### Deep Learning Research Intern, Baidu, Sunnyvale, CA, 5/21-8/21

- Audio processing to detect the existence and the direction angle with the distance of sirens sound for Apollo autonomous driving.
- Under review for ICRA 2022.

### NLP Data Scientist Intern, WOKEN, New York, NY, 12/18-3/19

- Classified job descriptions in LinkedIn profile into job titles with 88% accuracy and worked on generalizing better to open-question assessment data.
- Produced industry recommendations to open-question survey respondents among 33 different industries with 65.6% accuracy based on professional career advisors in our team.

### Research Assistant, NYU Stern School of Business, New York, NY, 9/18-4/19

- Apply GRU neural networks and machine learning to forecast municipal bonds with Professor Ipeiritis.

### Financial Engineer Intern, CoVenture VC, New York, NY, 8/18-9/18

- Applied machine learning and neural network models to form trading strategies for cryptocurrencies.
- Obtained a return of over 160% with a Sharpe ratio of 2.3 for 82 days in backtesting.

### Investment Analyst Intern, Blackwater Rock Asset Management Co. Ltd, Beijing, China, 1/17-5/17

- Analyzed 50+ IPO statements and compiled fundamental analysis reports for the board of directors.
- Researched about international capital movements' impact on stability of banks.

## PROJECTS

### Working paper, Rochester, NY, 1/20-Current, advised by Prof. Huaxia

- Data augmentation to improve on NLP algorithms with Airlines customer services data.

### Working paper, Rochester, NY, 6/20-Current, advised by Prof. Yaron and Prof. Joachim

- Use interpretable machine learning algorithms to identify the characteristics of the optimal policy in inventory problems, and construct reinforcement learning/ADP based on it.

### Independent Research, New York, NY, 8/19-9/19

- Liu, Xinyi, and Artit Wangperawong. "Transfer Learning Robustness in Multi-Class Categorization by Fine-Tuning Pre-Trained Contextualized Language Models." arXiv:1909.03564 (2019). <https://arxiv.org/abs/1909.03564>

### NYU Master's Thesis, 9/18-5/19

- Developed reinforcement learning and evolution strategies for trading the S&P 500.

### Independent Research, New York, NY, 6/18-7/18

- Liu, Xinyi, and Artit Wangperawong. "A Collaborative Approach to Angel and Venture Capital Investment Recommendations." arXiv:1807.09967 (2018). <https://arxiv.org/abs/1807.09967>

## EXTRACURRICULAR ACTIVITIES

### Tianchi Big Data Competition held by Ali, 2/18-3/18

- Ranked 40 among 847 participants to classify the planets based on their spectrum features.