

Yuanyuan Zhao

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EDUCATION

- **Cornell University** Ithaca, NY
Master (M.P.S) in Computer and Information Science Aug. 2018 – Dec. 2019
- **University of Illinois at Urbana-Champaign** Champaign, IL
Bachelor of Science in Computer Science and Mathematics Aug. 2014 – Dec. 2016

EXPERIENCE

- **PlusAI Automotive, Inc.** Beijing, China
Software Engineer Intern May 2019 - Aug 2019
 - **Tracking with CNN:** Set up data pipeline and finished implementation of a multiple object tracking model structures that utilizes ResNet, Feature Network Pyramid, and Convolutional Neural Network.
 - **Deep Learning:** Trained the model with KITTI dataset, implemented new MOTA and MOTP metrics inspired by KITTI benchmark, improved the precision from 58.5% to 79.3%, and reached an accuracy of 89.5%.
- **IoT in Farming with Cloud AI** Ithaca, NY
Project Jan 2019 - Present
 - **Cloud Application Framework:** Collecting barn and cow temperature from farm sensors, together with data from weather stations, passing it to IoT hub, storing it using Azure blob storage and service bus, and processing the data with Azure functions.
 - **Real-time Data Processing:** Analyzing data and making predictions on barns and cows temperature with a regression model in real time using Azure machine learning service; Displaying final results to end users through edge server.
- **Drop Rate Prediction by Virtu Financial Inc** Ithaca, NY
Project Aug 2018 - Dec 2018
 - **Machine Learning Algorithms:** Implemented and applied machine learning model, including Logistic Regression, Random Forest, Neural Network, KNN, SVM, to package drop rate data. Predicted real-time package drop rate with weather data at the accuracy of 74 percent.
 - **System Design:** Designed project framework, modules and prediction and classification algorithms for possible outage and data package loss during high frequency trading; Visualized the predicting result and retained the final model periodically.
- **Inspur Electronic Information Industry Co., Ltd.** Beijing, China
AI Software Engineer Intern Jan 2018 - Jul 2018
 - **Data Classification:** Implemented value-based and frequency-based classifiers on Forex price data; Designed and developed neural network model to fit and predict exchange rate data provided by Bank of China; Implemented stock prediction models utilizing ARIMA, GARCH, momentum functions, and LSTM; Scrapped websites for raw data and financial news.
 - **ML Research - LSTM and Auto-encoder:** Composing a paper on a novel description for exchange market based on auto-encoder and LSTM.
- **Morgan Stanley** Champaign, IL
Quantitative Analyst Intern (Remote) May 2016 - Jul 2016
 - **Quantitative Analysis:** Collected stock market data, and analyzed statistical correlation between fundamental factors and key performance indicators of stock market based on linear regression, F-test, Students t-test, R-squared test and White test for heteroscedasticity implemented in Python.
 - **Statistical Modeling:** Quantified historical risk ratio parameters (alpha, beta and P/E ratio) associated with Chinas A-share market; established the impact of large beta on stock market bubble and crash risks.

PROGRAMMING SKILLS

- **Languages and Tools:** Python, Tensorflow, Keras, Java, C++, C, Swift, Ocaml
- **Coursework:** Data Structures, Numerical Analysis, Algorithms and Computational Models, Graph Theory, Data Mining, Artificial Intelligence, Distributed Systems, Machine Learning, Cloud Computing, Computer Vision, Natural Language Processing
- **Hobbies::** Piano