Tianjiao (Charlene) Yu

ty37@rice.edu

EDUCATION

Rice University
Master of Electrical and Computer Engineering   *Aug. 2021- May 2023(expected)*
- **Specialization:** Data Science
- **Core Courses:** Machine Learning; Deep Learning; Design and Analysis of Algorithms; Database Programming; Computer Vision; Engineering Persuasion

Fudan University
Bachelor of Engineering in Electrical and Computer Engineering   *Sep. 2017 − Jun. 2021*
- **Core Courses:** Probability and Statistics; Data Structures and Algorithms; Database and Implementation; Computer Architecture; Computer Networks; Programming

RESEARCH EXPERIENCE

Development of Machine Learning Algorithms for Precision Waterbird Monitoring   *On-going*
- Build machine learning algorithms and train images to identify 20 most common nesting bird species for waterbird monitoring and protection
- Provide open-source algorithms and training to Houston Audubon staff and non-computer scientist on how to apply the software and programming to future surveys.

Natural Language Processing with Disaster Tweets (Kaggle Competition)   *Nov. 2021- Dec. 2021*
- Built different types of machine learning models: baseline machine learning classifiers, recurrent neural network and bidirectional encoder representations from transformers (BERT) using scikit-learn and TensorFlow-Hub to solve the binary text classification problem
- Ranked top 10% of F1-score accuracy on public leaderboard, achieved robust and reliable models to predict the relevance of tweet messages to real emergencies

K-means Algorithm Application on Signal Transmission Project   *Sep. 2019 − Dec. 2019*
- Designed a signal processing system based on the K-means unsupervised machine learning algorithm
- Proved that the K-means clustering algorithm could effectively cluster signal data and indicate their original source. The efficiency is improved to a Bit Error Rate lower than 10^{-2}

INTERNSHIP EXPERIENCE

Datalogic
Analyst Intern   *Apr. 2021 − May 2021*
- Analyzed sales data and wrote reports using database programming
- Implemented the company's system management routine

Shanghai Communications Services Corporation Limited
Data-Analyst Intern   *Aug. 2020 − Oct. 2020*
- Used Excel to classify and analyze the data of customer complaints
- Investigated industry cutting-edge technology and wrote analysis reports

SKILLS
- **Technical**: Java, Python, SQL, Linux, Excel, MATLAB
- **Languages**: English, Mandarin, Japanese

LEADERSHIP & VOLUNTEER ACTIVITIES
- Chief Member, Self-management Committee of Tengfei College, Fudan   *Sep. 2017 − June. 2018*
- Chief Resident Assistant, No.19 Dormitory Building, Fudan   *Sep. 2017 − June. 2018*
- Volunteer, Obstetrics and Gynecology Hospital of Fudan University   *Feb. 2019 − June. 2019*
- Volunteer, 2018 World Artificial Intelligence Conference, Fudan Forum   *Sep. 2018*