Xinyu Wang Email : wangxinyu500103@gmail.com
https://shawn233.github.io/about

Education

- **Shanghai Jiao Tong University** Shanghai, China
  Undergraduate, School of Computer Science *Sept. 2016 – Present*
  - Zhiyuan Honors Program of Engineering: an elite program for top 5% students
  - IEEE Pilot Class: an elite class for top students, referring to MIT's educational model
  - GPA: 91.11/100 (3.95/4.30), Ranking: 7/91

Publications

No-Jump-into-Latency in China's Internet! A Hop Count Based IP Geo-localization Approach
- Chong Xiang, **Xinyu Wang**, Qingrong Chen, Minhui Xue, Zhaoyu Gao, Haojin Zhu, Cailian Chen, and Qiuhua Fan
- In Submission to 26^{th} IWQoS

Research Projects

- **Hop Count Based IP Geo-localization in China's Internet** *Jun. 2018 – Oct. 2018*
  Advisor: Prof. Haojin Zhu *Shanghai Jiao Tong University*
  - Exploited hop count instead of RTT for distance estimation to address the problem of poor correlation between latency and physical distance in China's Internet
  - Estimated service radius for each provincial router and fitted a mapping from hop count to physical distance between IPs within the same province
  - Geo-localized the target IP to the location of its nearest landmark and achieved an estimation error within ten kilometers for 65% of 48,874 targets
- **Robust Features as a Defense Against Image Adversarial Attacks** *Oct. 2018 – Jan.2019*
  Advisor: Prof. Li Jiang *Shanghai Jiao Tong University*
  - Introduced the concept of "robust features", features of input images that are resistant to slight perturbations. and exploited the edge information and the color construction as robust features
  - Proposed a robust deep learning structure to evaluate edge information, one of the robsut features, and successfully defended against 71.5% (99.5% for the best class) adversarial attacks
  - Analyzed the internal reasons of robustness by mathematically evaluating the edge detection algorithm, and summarized four major factors which will shed light on future exploration of defenses against adversarial examples
- **Deep-Learning-Based High-Frequency Stock Price Prediction** *Nov. 2018 – Dec. 2018*
  Advisor: Prof. Liqing Zhang *Shanghai Jiao Tong University*
  - Analyzed the statistical features of high-frequency stock trading among over 100,000 records
  - Processed raw trading records using data cleaning, normalization, and data smoothing techniques
  - Applied two deep learning algorithms on processed data to model the sophisticated trading game, and achieved an error rate of less than 0.00140 on Kaggle private leaderboard (ranking 4/60)

Honors and Awards

- Jin Long Yu Scholarship, Shanghai Jiao Tong University (only 3 awarded studetns in the School of EECS)
- Zhiyuan Honors Scholarship, Shanghai Jiao Tong University (top 5%)
- Zhiyuan Honors Research Program, Shanghai Jiao Tong University
  - Project Topic: Adversarial Deep Learning and Its Applications in Internet of Things
  - The only EECS project out of 8 projects founded in 2018

Programming Skills

- Knowledge of Python, C++, and Java
- Capable of implementing machine learning models with Tensorflow
- Experience of website designing using JavaScript

Extracurricular Activities

- Volunteering Experiences
  - ACM TURC 2018 volunteer, served as conference recorder
  - Shanghai International Marathon volunteer, in both 2018 and 2019