

Education

- Bachelor of Computer Science and Technology

School: Changshu Institute of Technology

GPA:3.79

Major: Computer Science and Technology

Graduate: June 2019

- Master of Software Engineering

School: Monmouth University

GPA:4.00

Major: Software Engineering

Graduate: December 2020

- PhD of Computer Science & Information

School: Temple University

GPA: -

Major: Computer Science & Information

Expected Graduate: May 2025

Publications

- M. Anwar, **F. Lan**, A. Wang and M. Caesar, "Indirect Network Troubleshooting with The Chase", June 29-30, APnet 2023
- **F. Lan**, S. Biswas, B. Gui, J. Wu and A. Wang, "Design and Implementation of a Strong Representation System for Network Policies", July 2022, ICCCN 2022
- **F. Lan**, B. Gui and A. Wang, "Fauré: A Partial Approach to Network Analysis", HotNet 2021
- B. Gui, **F. Lan**, and A. Wang, August 2021, "Sarasate: A Strong Representation System for Networking Policies", November 2021, Sigcomm 2021
- B. Gui, **F. Lan**, and A. Wang, "Flexible Routing with Policy Exchange", June 2021, APNet 2021
- W. Zhang, J. Wang and **F. Lan**, "Dynamic Hand Gesture Recognition Based on Short-Term Sampling Neural Networks", IEEE/CAA Journal of Automatica Sinica (Accepted)
- **F. Lan**, "The Study of the Algorithm for the Prediction of Photovoltaic Power Based on LSTM and System Development" (Undergraduate Thesis - Chinese)
- **F. Lan**, W. Zhang, X Ying, "An Indoor Positioning System Based on ZigBee and RSSI Ranging Algorithm", Software Guide, 2018, 17(2): 110-113. (Chinese)

Project experience

- **Pyotr: Tableau as a network representation for deep analysis** Jan. 2021 – current

Technique: Python, SQL, PostgreSQL

- **Fauré: A partial approach to network analysis** September 2021 – Dec. 2021

Project description: Fauré, a preliminary design in which a datalog extension (called fauré-log) for incomplete information is developed to enable loss-less modeling, and combined with static analysis of pure datalog to implement example relative-complete verifiers.

Technique: Python, SQL, PostgreSQL

- **Sarasate: A strong representation system for network policies** June 2021 – September 2021

Project description: we adopt conditional tables and the usual SQL interface (a relational structured developed for incomplete database) as a means to represent and query sets of network states in exactly the same way as a single definite network snapshot.

Technique: Python, SQL, PostgreSQL

- **Hand Gesture Recognition** September 2019 – Dec. 2020

Project description: It could recognize the dynamic hand gesture base on a webcam. The hand gesture types include swiping left, swiping right, swiping down, swiping up, pushing hand away, pushing hand in, turning hand clockwise, turn hand counterclockwise, thumb up, thumb down, shaking hand, drumming fingers, stop sign and so on.

Technique: Python, PyTorch, OpenCV, PIL, CUDA, 3D Convolutional Neural Network, Flask, HTML/CSS, JavaScript/jQuery

Training dataset: 20BN-jester Dataset V1

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Project demo video: <https://youtu.be/gBE7cOssUbl>, <https://youtu.be/bSkLH-NgOD8>

- **TimeMe—Time management tool** September 2019 – May 2020

Project description: A web application is developed to aid users with difficulty to manage their time.

Language: PHP, MySQL, JS

Software Framework: Laravel, vue.js

- **Photovoltaic power generation prediction based on LSTM** October 2018 – May 2019

Project description: Predicting the short-term or ultra-short-term photovoltaic power based on LSTM. This project has been applied into DAQUAN Research Institute.

Language: Python, HTML, JS

Software Framework: Flask

Algorithm: LSTM-RNN

Training dataset: the dataset of one-year history photovoltaic power and weather condition provided from DAQUAN Research Institute.

Work experience

- Research Assistant Sep. 2021 – current

Company: Temple University

- Research & Teaching Assistant Sep. 2019 – Dec. 2020

Company: Monmouth University

Teaching experience

- Guest Lecture: Software-defined Network with Ravel

Feb 27th, Spring 2023, CIS4319 Computer Networks and Communications, Temple University

Skills

- **Language:** Python, Java, C, PHP, JavaScript, HTML, jQuery, Bootstrap, SQL
- **Database:** MySQL, SQL server
- **Software Framework:** Spring, Spring MVC, MyBatis, Laravel, Flask, NumPy, Tensorflow, PyTorch
- **Project Management:** Git/GitHub, Docker, Maven
- **Platform:** Web, Android App

Algorithm competition experience

- Student Research Competition, Sigcomm 2021, August 23-27, 2021 Certificate of Recognition
- The 9th contest of LAN QIAO CUP the Second Prize Certification No.050902401

Honors

- National scholarship 2016 Fall-2017 Spring
- National scholarship for Encouragement 2017 Fall-2018 Spring

Scholarships

- The First Prize Scholarship 2015 Fall-2016 Spring CIT
- The First Prize Scholarship 2016 Fall-2017 Spring CIT
- The Second Prize Scholarship 2017 Fall-2018 Spring CIT
- The Second Prize Scholarship 2018 Fall-2019 Spring CIT
- Scholarship 2019 Fall MU
- The graduate research assistantship 2019 Fall MU
- Scholarship 2020 Spring MU
- The graduate research assistantship 2020 Spring MU
- The graduate teacher assistantship 2020 Spring MU