# FANGPING LAN

Temple University, Philadelphia, PA, 19122; fangping.lan@temple.edu

## 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 2026

## Publications

- **F. Lan**, A. Aljebreen and E. Dragut, "UniT: One Document, Many Revisions, Too Many Edit Intention Taxonomies", ACL Findings 2025
- A. Wang, M. Anwar, **F. Lan** and M. Caesar, "Structural Semantics Management: an Application of the Chase in Networking", October 16-18, MASCOTS 2023
- M. Anwar, A. Wang, **F. Lan** and M. Caesar, "Demo: Structural Network Minimization: A Case of Reflective Networking", September 10-14, Sigcomm 2023
- 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 2020
- **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 – July 2023

**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

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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

**Project demo video:** https://youtu.be/gBE7cOssUbI, https://youtu.be/bSkLH-Ng0D8

- **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 & Teaching Assistant Sep. 2021 – current

**Company:** Temple University

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

**Company:** Monmouth University

## Teaching experience

- **Recitation**: CIS 2166 - Math Concepts in Computing II
  Spring 2024, Computer & Information Science Department, Temple University
- CIS 3211 Automata, Computability & Languages
  Spring 2024, Computer & Information Science Department, Temple University
- **Recitation**: CIS 1966 - Honors Math Concepts in CS I
  Fall 2023, Computer & Information Science Department, Temple University
- **Lab Instructor**: CIS 1057 - Computer Programming in C
  Fall 2023, Computer & Information Science Department, Temple University
- **Guest Lecture**: Software-defined Network with Ravel
  Feb 27th, Spring 2023, CIS4319 Computer Networks and Communications, Temple University

## Skills

- **Language:** Python, Java, C, ASP, 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

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- 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 and he graduate research assistantship 2019 Fall MU
- Scholarship 2020 Spring MU
- The graduate research assistantship 2020 Spring MU
- The graduate teacher assistantship 2020 Spring MU