

# Yu-Tai Lin

🏠 <https://yutailin1993.github.io>

## EDUCATION

### Ph.D. in Electrical and Computer Engineering

*Georgia Institute of Technology*

Aug. 2022 - Aug. 2027 (Expected)

*Atlanta, USA*

### Master of Science in Computer Science

*National Tsing Hua University*

Sep. 2016 - Jun. 2018

*Hsinchu, Taiwan*

### Bachelor of Science in Engineering Science

*National Cheng Kung University*

Sep. 2012 - Jun. 2016

*Tainan, Taiwan*

## RESEARCH EXPERIENCES

### Research Assistant in MARGA

*Georgia Institute of Technology*

◦ Advisor: Prof. Karthikeyan Sundaresan

Aug. 2022 - Present

*Atlanta, USA*

### Research Assistant in SNACLab

*Academia Sinica, Taiwan*

◦ Advisor: Prof. Chih-Yu Wang

Aug. 2020 - Jul. 2022

*Taipei, Taiwan*

### Research Assistant in VCLab

*National Tsing Hua University*

◦ Advisor: Prof. Jia-Shung Wang

Sep. 2016 - Aug. 2018

*Hsinchu, Taiwan*

## PUBLICATIONS

- [1] N. Cameron Matson, **Yu-Tai Lin**, and Karthikeyan Sundaresan. “A Holistic Approach to Non-Terrestrial 5G Networking with LEO Satellites: Algorithms, Experiments and Insights”. *Proc. ACM Netw.*, (To appear in CoNEXT’25), 2025.
- [2] **Yu-Tai Lin**, N. Cameron Matson, and Karthikeyan Sundaresan. “Bringing Collaborative Positioning to Native 5G Systems for Enhanced 2D & 3D Location Services”. *Proc. ACM Netw.*, 2(CoNEXT4), 2024.
- [3] Alan Liu, **Yu-Tai Lin**, and Karthikeyan Sundaresan. “View-agnostic Human Exercise Cataloging with Single MmWave Radar”. In *ACM IMWUT / UbiComp*, 2024.
- [4] Hiroki Mii, Swarna Shah, Bozhou Lu, Alan Liu, **Yu-Tai Lin**, and Karthikeyan Sundaresan. “Practical Implementation of Robust Human Activity Cataloging with mmWave Radar”. In *2024 IEEE Opportunity Research Scholars Symposium (ORSS)*, 2024.
- [5] **Yu-Tai Lin** and Karthikeyan Sundaresan. “A New Paradigm of Communication-Aware Collaborative Positioning for FutureG Wireless Systems”. In *24th ACM MobiHoc*, 2023.
- [6] **Yu-Tai Lin**, Chi-Yang Kuo, Ming-Hsuan Tsai, and Chih-Yu Wang. “Queueing Model for Intermittent Communication and Computing of Battery-less Edge Computing”. In *2023 IEEE International Conference on Communications Workshops (ICC Workshops)*, 2023.
- [7] **Yu-Tai Lin**, Yu-Cheng Hsiao, and Chih-Yu Wang. “Enabling Mobile Edge Computing for Battery-less Intermittent IoT Devices”. In *2021 IEEE Global Communications Conference (GLOBECOM)*, 2021.
- [8] Tzu-Hsin Yang, **Yu-Tai Lin**, Chao-Lun Wu, and Chih-Yu Wang. “Voting-Based Ensemble Model for Network Anomaly Detection”. In *2021 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2021.
- [9] **Yu-Tai Lin**, Chia-Cheng Yen, and Jia-Shung Wang. “Video Popularity Prediction: An Autoencoder Approach With Clustering”. *IEEE Access*, volume 8, 2020.

- [10] Yi-Ting Chen, Chia-Cheng Yen, **Yu-Tai Lin**, and Jia-Shung Wang. “Cooperative Caching Plan of Popular Videos for Mobile Users by Grouping Preferences”. In *16th International Conference on Pervasive Intelligence and Computing(PiCom)*, 2018.

## AWARDS & HONORS

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- Georgia Tech ECE Telecom connections best presenter award, USA, 2023
- NSF Student Travel Grant for ACM MobiHoc 2023, National Science Foundation, USA, 2023
- 1st place (out of 87 teams from around the world) of ZYELL-NCTU Network Anomaly Detection Challenge, IEEE ICASSP Grand Challenge, 2021.
- Undergraduate Research Creativity Award, Ministry of Science and Technology, Taiwan, 2016.
- Research Grant For Undergraduate Students, Ministry of Science and Technology, Taiwan, 2015.

## ACADEMIC SERVICES

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- Reviewer of IEEE Networking Letters, 2025
- Reviewer of IEEE Transactions on Mobile Computing (TMC), 2025
- Reviewer of Journal of Network and Computer Applications (JNCA), 2024
- Mentor of ECE Opportunity Research Scholar's Program at Georgia Tech, 2023

## WORK EXPERIENCES

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### Research Associate Intern

*Hewlett Packard Enterprise*

**May. 2025 - Present**

*Milpitas, CA, USA*

- Research leveraging wireless localization to enhance wireless network orchestration.
- Conducted real-world experiments to identify the challenges and verify the proposed solutions.

### Software Engineer

*Synology Inc.*

**Nov. 2018 - Aug. 2020**

*New Taipei, Taiwan*

- **Led product data collection and analysis cloud service design and maintenance.**
  - Optimized cloud service code to improve the stability and performance.
  - Optimized AWS services infrastructure to reduce costs by 30%.
  - Initiated an Infrastructure as Code design to deploy the cloud service quickly.
  - Created a monitoring system to improve service's responsiveness and visibility.
- **Initiated a package installation framework for Docker-based applications to protect the Synology NAS system.**
  - Designed a framework to help Docker applications create docker-compose files.
  - Prevented Docker applications from getting root access to protect the NAS system.
- **Managed package porting and maintenance for Synology NAS.**
  - Optimized the package installation framework.

### Software Engineer (Intern)

*Gigabyte Inc.*

**Jul. 2014 - Aug. 2014**

*New Taipei, Taiwan*

- Collaborated with a team to build a PC-cluster environment.
- Conducted experiments to compare performance between PC-cluster and server environments.

## TECHNICAL SKILLS

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- **Programming Languages:** Python, C/C++, JavaScript, PHP, Matlab
- **Operating System:** Linux
- **Database:** MySQL, SQLite, Elasticsearch, Prometheus
- **Wireless System:** WiFi, 5G cellular, mmWave system, Embedded wireless system
- **Others:** NS3, AWS, Docker, Git, Tensorflow, GDB, Grafana, Flask