Yu-Tai Lin

⌂ https://yutailin1993.github.io

EDUCATION

Ph.D. in Electrical and Computer Engineering   **Aug. 2022 - Aug. 2027 (Expected)**
Georgia Institute of Technology   *Atlanta, USA*

Master of Science in Computer Science   **Sep. 2016 - Jun. 2018**
National Tsing Hua University   *Hsinchu, Taiwan*

Bachelor of Science in Engineering Science   **Sep. 2012 - Jun. 2016**
National Cheng Kung University   *Tainan, Taiwan*

RESEARCH EXPERIENCES

Research Assistant in MARGA   **Aug. 2022 - Present**
Georgia Institute of Technology   *Atlanta, USA*
○ Advisor: Prof. Karthikeyan Sundaresan

Research Assistant in SNACLab   **Aug. 2020 - Jul. 2022**
Academia Sinica, Taiwan   *Taipei, Taiwan*
○ Advisor: Prof. Chih-Yu Wang

Research Assistant in VCLab   **Sep. 2016 - Aug. 2018**
National Tsing Hua University   *Hsinchu, Taiwan*
○ Advisor: Prof. Jia-Shung Wang

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. 3(CoNEXT4), 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 Cataloguing 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

- 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

- 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 Georga Tech, 2023

WORK EXPERIENCES

Research Associate Intern   **May. 2025 - Present**
Hewlett Packard Enterprise   *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   **Nov. 2018 - Aug. 2020**
Synology Inc.   *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)   **Jul. 2014 - Aug. 2014**
Gigabyte Inc.   *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

- **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