

# Tianyang Chen

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**Interest:** mm-Wave to sub-THz Integrated Sensing and Communication



## EDUCATION

### University of Maryland College Park

College Park, Maryland, USA

*Ph.D. Student in Electrical and Computer Engineering*

Aug. 2025 ~ Present

- **GPA:** 3.85/4.00; **Courses:** Advanced Digital Signal Processing, Convex Optimization.

### Southern University of Science and Technology of China

Shenzhen, Guangdong, China

*Bachelor of Engineering in Electrical and Electronics Engineering with Outstanding Graduate Award*

Aug. 2021 ~ Jul. 2025

- **GPA:** 3.78/4.00; **Courses:** Microwave Engineering, Microprocessors and Microsystems, Digital Circuits.

### Nanyang Technological University

Singapore

*Undergraduate Semester Exchange in Electrical and Electronics Engineering*

Jan. 2024 ~ May. 2024

- **GPA:** 4.67/5.00; **Courses:** Computer Networks, Computer Organization, Data Structures and Algorithms.

## PUBLICATIONS

- **T. Chen**, A.W. Nazar, S. Ulukus, and Z. Shaikhanov, “**Demo: MUFASA - Localized Flood Sensing and Alerting via Autonomous Millimeter-wave Wireless**,” ACM 27th HotMobile '26, Atlanta, GA, USA, 2026. DOI: 10.1145/3789514.3796246
- **T. Chen**, A.W. Nazar, S. Ulukus, and Z. Shaikhanov, “**MUFASA: Localized Flood Sensing and Alerting via Autonomous Millimeter-wave Wireless**,” ACM 27th HotMobile '26, Atlanta, GA, USA, 2026. DOI: 10.1145/3789514.3792045
- **T. Chen**, Y. Liu, Z. Li, Y. Jiang, M. Yu, L. Xu, and T.T. Ye, “**ID-Yarn: Form-factoring an RFID Tag into a Yarn and How It Can Work Well**,” IEEE 14th RFID-TA '24, Daytona Beach, FL, USA, 2024. DOI: 10.1109/RFID-TA64374.2024.10965149

## RESEARCH

### Localized Flood Sensing and Alerting via Autonomous mm-Wave Radar

University of Maryland College Park

*Advisors: Prof. Zhambyl Shaikhanov, Prof. Sennur Ulukus*

Sep. 2025 ~ Present

- Repurposing ubiquitous automotive radar for flash-flood sensing and last-mile alerting.
- Enabled downward sensing lobes on forward-only TI AWR radars and implemented sub-mm water surface motion tracking.

### Characterization and Modeling of GaN HEMTs for RF System Design

University of Notre Dame

*Advisor: Prof. Patrick Fay*

Jul. 2024 ~ Sep. 2024

- Utilizing Angelov Model for RF device characterization to bridge the gap between fabrication and wireless system design.
- Characterized emerging GaN HEMTs via mm-wave probe stations and developed Angelov models based on IC-CAP.

### Integrating RFID in Yarns as Wearable Tags

Southern University of Science and Technology of China

*Advisor: Prof. Terry Tao Ye*

Jan. 2024 ~ May. 2024

- Seamlessly integrating RFID chips with textiles to enable ubiquitous wireless communication and sensing.
- Micro-soldered RFID chips onto conductive fibers and optimized the wearable tags in HFSS and COMSOL.

## ADDITIONAL INFORMATION

### Awards

- ACM HotMobile Student Travel Grant, International Workshop on Mobile Computing Systems and Applications. (Feb. 2026).
- Dean's Fellowship in Electrical and Computer Engineering, University of Maryland College Park. (Aug. 2025).
- Outstanding Student Scholarship, Southern University of Science and Technology of China. (Oct. 2024 & 2023).
- Texas Instruments Cup National Undergraduate Electronic Design Contest, Guangdong, China. (Aug. 2023).

**Reviewer:** IEEE INFOCOM '27, IEEE S&P '27, IEEE MILCOM Workshop '26, IEEE MeditCom '26, WiSense '26.