

XIANG MA

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EDUCATION EXPERIENCE

Utah State University **Electrical Engineering** PhD August 2019 - Present
Work in USU network innovation lab, focus on federated learning via wireless communication.
Research on the positioning of vehicles using RFID in the large city environments.

SUSTech **Electrical Engineering** BEng August 2013 - June 2017
Optimize ZigBee Protocol in IoT lab, achieve two transmissions simultaneously.
Campus WLAN signal traffic test, provide useful advice to the IT department.

RESEARCH INTERESTS

Federated Learning
Positioning by RFID

TEACHING EXPERIENCE

Work as a lab class teaching assistant:

ECE 5600: Introduction to Computer Networks, Fall 2020, Fall 2021.

ECE 6600: Wireless and Mobile Networking, Spring 2021.

WORK EXPERIENCE

Sangfor Technologies, China (June 2017-June 2019).
Software Engineer

Work in virtual technology (VT) department and take part in data backup project for the data IO.
Develop a verification tool to find data backup bugs.

Use Selenium to execute API test from browser.

PUBLICATIONS

· Journal Publications:

1. H. Sun, **X. Ma**, and R. Q. Hu, "Adaptive Federated Learning With Gradient Compression in Uplink NOMA," *IEEE Trans. Veh. Technol.*, vol. 69, no. 12, pp. 16325-16329, 2020.

Conference Publications:

1. **X. Ma**, H. Sun, Qun Wang and R. Q. Hu, "User Scheduling for Federated Learning Through Over-the-Air Computation," in *IEEE VTC 2021 Fall*
2. **X. Ma**, H. Sun, and R. Q. Hu, "Scheduling policy and power allocation for federated learning in NOMA based MEC," in *Proc. IEEE GLOBECOM*, Taipei, Taiwan, Dec. 2020.
3. H. Sun, Q. Wang, **X. Ma**, Y. Xu, R. Q. Hu, "Towards Green Mobile Edge Computing Offloading Systems with Security Enhancement," *2020 Intermountain Engineering, Technology and Computing (IETC)*, Orem, UT, USA, 2020, pp. 1-6.

HONORS AND AWARDS

- Newly-Established Scholarship from SUSTech, 2013-2016
- Excellent New Employee in Sangfor Technologies, 2017

SERVICES

President of Chinese Student Association, USU, 2020-2021

Freshman Instructor Assistant, SUSTech, 2015-2016

PROFESSIONAL SOCIETIES

IEEE Student Member

SKILLS & EXPERTISE

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|---------------------------|----------------------------------|
| Computer Languages | Java, Python, C |
| Software | Matlab, LabView, Latex, GNURadio |
| Hardware | Arduino, Raspberry Pi, USRP |