Huatao Xu

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I am an inventive and resourceful master student with a strong interest in ubiquitous computing, especially in related fields of building wireless-based sensing interfaces to bridge gaps between computing resources and human's daily lives. My current research focuses on **RFID Sensing**, including Location Estimation, Behavior Recognition, Authentication, Health Sensing, etc.

Education

09/2017– Current **M.Eng.**, *Shanghai Jiao Tong University (SJTU)*, Shanghai, China.
Advisor: Prof. Dong Wang Expected Graduation Date: 03/2020
Major: Software Engineering GPA: 3.51/4.0

09/2013– 06/207 **B.Eng.**, *Nanjing University (NJU)*, Nanjing, China.
Major: Software Engineering GPA: 4.05/5.0

Publications

09/2019 **FaHo: Deep Learning Enhanced Holographic Localization for RFID tags**.
- **Huatao Xu**, Dong Wang, Run Zhao, Qian Zhang.
- In *The 17th ACM Conference on Embedded Networked Sensor Systems*, **SenSys 2019**.
- Design a new hologram called joint hologram and propose a new hologram-based position estimation method for accurate RFID tag localization.

07/2019 **AdaRF: Adaptive RFID-based Indoor Localization Using Deep Learning Enhanced Holography**.
- **Huatao Xu**, Dong Wang, Run Zhao, Qian Zhang.
- In *The 2019 ACM International Joint Conference on Pervasive and Ubiquitous Computing*, **Ubicomp 2019**.
- Propose an RFID-based localization system that creates adaptive localization model for stable environments using synthetic aperture technique and deep learning algorithm.

03/2019 **PEC: Synthetic Aperture RFID Localization with Aperture Position Error Compensation**.
- Run Zhao, Dong Wang, Qian Zhang, Haonan Chen, **Huatao Xu**.
- In *2019 16th Annual IEEE International Conference on Sensing, Communication, and Networking*, **SECON 2019**.
- Present an accurate synthetic aperture RFID localization system considering aperture position error compensation.

06/2018 **PRMS: Phase and RSSI based Localization System for Tagged Objects on Multilayer with a Single Antenna**.
- **Huatao Xu**, Run Zhao, Qian Zhang, Dong Wang
- In *Proceedings of the 21st ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems*, **MSWIM 2018**.
- Design a system that estimates the spatial positions of RFID tags using both phase and RSSI profiles provided by a single antenna.

Projects

2019 **RFID-based Deep Learning Enhanced Holographic Localization System**.
A Python project that analyzes RFID signals and estimate positions of RFID tags based on Tensorflow.

2018 **Student work traceability display system**.
A C# program that displays and record image data captured by a HIKVISION camera.

2017 **RFID Sensing Platform**.
An extensible C# program that collects and displays low level RFID signals profiles reported from ImpinJ reader using LLRP protocol.

2016 **Systematic Evaluation System**.
A website where users can search literature with key words based on Python Django framework.

Awards and Honors

2019 **National Scholarship**. SJTU

Highest national wide scholarship for postgraduate students in China

2016 **National Encouragement Scholarship**. NJU

Miscellaneous Experience

Professional Experience

2017 **Internship**, *Web Department*, Nanjing Yikemi (Start-up company).

- Develop websites for Online Course Platform and Student Data Sharing Platform, which are both entrepreneurial projects.

Leadership Experience

2016 **President**, *Jiangxi Association*, NJU.

- Organized activities on a regular basis to spread Jiangxi culture.

Volunteer Experience

2018 **National Undergraduate IOT Design Contest**, *China*.

- Responsible for the guidance for all teams.
- Arranged and directed contest progress.

Skills

Computer Python(Tensorflow), Java, Web, C#, Matlab, LaTeX

Others Competent in communications, good leadership and strong teamwork spirits

Standard Tests

GRE 324 (V: 154/ Q: 170) + 3 (AW)

TOEFL(iBT) 97 (R: 27/ L: 25/ S: 21/ W: 25)