

Yuxuan Fang

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Education

Purdue University

West Lafayette, USA

Doctor of Philosophy in Aeronautical and Astronautical Engineering

Aug. 2024 -

- Major in Control and Autonomy

University of Michigan - Ann Arbor

Ann Arbor, USA

Master of Science in Electrical Engineering

Sept 2022 - May 2024

- Major in Control Systems Track
- **Courses:** EECS 460: Control Systems Analysis and Design, EECS 560: Linear Systems Theory, EECS 566: Discrete Event Systems (FA 2022); EECS 562: Nonlinear Systems and Control, EECS 565: Linear Feedback Control Systems (WN 2023); AEROSP 590: Directed Study (Advisor: Prof. Max Z. Li, SP-SM 2023); EECS 562: Hybrid Control, EECS 501: Probability and Random Process (FA 2023); EECS 502: Stochastic Processes (WN 2024).
- Current GPA 4.0/4.0.

Huazhong University of Science and Technology

Wuhan, China

Bachelor of Engineering in Electrical Engineering

Sept 2018 - Jun 2022

- Major in Electrical Engineering and its Automation - Power Electronics and Electric Drive.
- Graduated with GPA 3.81/4.0.

Publications

[1] Huang, H., **Fang, Y.**, Mazotti, B., Kim, J., Fa, K. X., & Li, M. Z. (2024). Privacy-Aware Design and Analysis of Drone Remote Identification Systems. IEEE Transactions on Intelligent Transportation Systems.

[2] **Fang, Y.**. The Optimization of Control Logic Based on Abrasion-Averaging Model. Techniques of Automation and Applications 40.11(2021):9-12. doi:CNKI:SUN:ZDHJ.0.2021-11-002.

[3] **Fang, Y.**. Brief Talk about Application of Matrix Control in Industrial Automation. Techniques of Automation and Applications 40.03(2021):129-132. doi:CNKI:SUN:ZDHJ.0.2021-03-028.

Projects

Plausible Deniability and Privacy Analysis in the Drone Package Delivery Systems

Master's Directed Study

University of Michigan - Ann Arbor

May 2023 - Aug 2023

- Continued the previous plausible deniability analysis. The trajectory is only partially observable.
- Designed a spline-based Bézier curve approximation and a privacy scoring method for plausible deniability quantification.
- Submitted a corresponding journal paper on IEEE T-ITS (Accepted).

Communication of a Magnetic Bearing Control System and its Upper System Design

Bachelor's Thesis

Huazhong University of Science and Technology

Dec 2021 - May 2022

- Designed a customized communication protocol including package data paradigm upon a DSP-based magnetic bearing system, necessary data processing operations, details to utilize UDP protocols, etc.
- Composed a GUI and its APIs with Python, which smoothly controls the system and visualizes the communications information.

Work Experience

Nanjing Electrical Engineering & Technology Co., Ltd HTC

Nanjing, China

Intern at Department of Engineering

Jul 2020 - Aug 2020

- Designed a PLC-SCADA system for the pump station with STEP-7 and WinCC, which organizes the system well.
- Published a paper based on the design in Nov. 2021.

Miscellaneous

Computer Skills	Python, MATLAB, C/C++, SQL, Mathematica, Mark Down, \LaTeX , Microsoft Office.
Honor Society	Active Member of Tau Beta Pi and Eta Kappa Nu since Dec 2023.
Scholarships	Scholarship for Extracurricular Activities (awarded by HUST in Dec 2019); Scholarship for Self-improvement (awarded by HUST in Dec 2020).
Awards	Best Creativity Award for the Makers' Summer Camp (endorsed by HUST-SEEE in Sep 2019); Successful Participants of MCM/ICM 2020 Section II; Excellent Ranking granted by HUST in the College Student Entrepreneurship Competition (2020-2021).
Leadership	The Host Team Leader of HUST-SEEE Student Union (Sep 2020 - Jun 2021)