Yuxuan Fang

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Education

University of Michigan - Ann Arbor *Ann Arbor, USA*

MSE in Electrical Engineering *Sept 2022 - Present*

- 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*

B.Eng. 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] H. Huang, **Y. Fang**, B. Mazotti, J. Kim, K. X. Fa, M. Z. Li†. Privacy-Aware Design and Analysis of Drone Identification System, IEEE Transactions on Intelligent Transportation Systems *(In Review)*.

[2] **Y. Fang**. 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] **Y. Fang**. 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 (In review).

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.
- Pubished 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)