# 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)
- 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 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.
- Submittted 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

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| **Computer Skills** | Python, MATLAB, C/C++, SQL, Mathematica, Mark Down, LaTeX, Microsoft Office. |
| **Honor Society** | Electee of Tau Beta Pi and Eta Kappa Nu. Anticipated to be an active member since Dec 2023. |
| **Scholarships** | Scholarship for Extracurricular Activities (endorsed by HUST in Dec. 2019); Scholarship for Self-improvement (endorsed 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) |