

Qinxiao Ma

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EDUCATION

SHANGHAI TECH UNIVERSITY, Shanghai, China Sep. 2019 – Expected Jun. 2023

Bachelor of Science Candidate, Electronic and information Engineering, School of Information Science and Technology (SIST)

- GPA 3.77/4.0 | GPA (Major): 3.89/4.0 | Rank (Major): 5/61 | GPA Rank in SIST: 15/227
- Academic awards: *Outstanding Student (Well-Roundedness Top 2%; 2019-2020); Outstanding Scholarship (Academic Top 3%; 2019-2020); Merit Student (Well-Roundedness Top 3%-7%; 2020-2021); Merit Scholarship (Academic Top 6%; 2019-2020)*

RESEARCH INTEREST

- Adaptive Control for Robotics.

EXPERIENCE

SHANGHAI TECH UNIVERSITY, Shanghai, China 2021 – Present

Undergraduate Researcher, Multi-Agent System & Intelligent Control (MAGIC) Group | PI: Prof. Yang WANG

Project: Model Reference Adaptive Control Derivation Dec. 2021 – Present

- Preparing to create improved adaptive controller by deriving the Model reference adaptive control case of order 1 to order 3 (including steps such as equation derivation and adaptive control law classification)
- Reconstructing algorithms through control simulation for specific conditions, using control package in MATLAB and Simulink, which are important in modern control analysis.

Digital Integrated Circuits Course (EE113) Project Fall 2021

- Built SRAM and peripheral circuits in Cadence and improved programming speed of SRAM to <1 ns (from standard speed of 4 ns) by creating new components and sizing for MOSFET and making novel changes to post-simulation, in which we discovered new circuit and parasitic capacitance phenomenon.

Introduction of Control Course (EE160) Project

- Used PID method to build a control method to organize performance of Hydraulic Servo systems. Applied DH algorithm to improve performance. Improved output, controlled oscillation, and accelerated convergence by using LQR algorithm to tune parameters.

Adaptive Control (EE264) Project

- Analyzed DREM-MRAC control method and simplify the condition of classic MRAC problem. Applied DREM algorithm to simplify the classic MRAC assumption. Improved transient behavior, controlled oscillation and simulated the results.

Teaching Assistant, Electric Circuits (EE111) | Course Instructor: Prof. Yu LIU Feb. 2021 – Jun. 2021

- Lectured classes for solving exercises and held office hours for personal tutoring, received SIST Merit TA award.
- Organized assignments for students and graded assignments and exams for students.

Teaching Assistant, Signal & System Course (EE150) | Course Instructor: Prof. Yong ZHOU Feb. 2022 – Jun. 2022

- Organized assignments for students and graded assignments and exams for students.
- Lectured classes for solving exercises and held office hours for personal tutoring.

ACTIVITIES

SHANGHAI TECH UNIVERSITY, Shanghai, China 2019 – Present

Participant, 19th National Robotics Competition for College Students, Shanghai, China Sep. 2019 – May 2021

- Used SolidWorks to manually design and test the mechanical portion of six robotic cars used in robot battle arena, receiving World Second Prize in China.

Group Leader, Industrial Practice Group for Industrial 4.0 Industry Practice Course Jul. 2022

- Led a group of 30 students to research best practices for attracting top talent to new industrial zones in Shanghai by interviewing and researching three benchmark companies (General Electric, Dassault Systèmes and Rockwell Automation), receiving Third Prize in ShanghaiTech for final analysis report.

- Member, Social Practice Group for Ning Xia Field Research, Ningxia Autonomous Region** Jun. 2022 – Jul. 2022
- Served as student group photographer and video director to produce promotional multimedia content on the Intangible Cultural Heritage of Ningxia to attract tourism to marginalized region, receiving Second Prize at ShanghaiTech.
- Co-founder, Electronic Information and Engineering Major Debate Club, First Prize** Sep. 2019 – Dec. 2019
- Leader, Tutor Group:** Managing introductions between students and professors Sep. 2019 – Present
- Volunteer: Industry Fair:** Organized students to contact over 100 companies to give industry seminars. Sep. 2020 – Jul. 2021

SKILLS

- Languages: Chinese (Native), English (Fluent)
- Computer Skills: MATLAB(S-Function), Simulink, Latex, Python, C, C++