Ziying (Zoey) Huang

+86 181 9072 9920 | 12212453@mail.sustech.edu.cn | linkedin.com/in/zoey-ziying

EDUCATION

Southern University of Science and Technology, Shenzhen, China, BS in ECE — Sept. 2022 – Jun. 2026

- GPA: 3.84/4.0 (92.2/100) Rank: 2/186

Southern University of Science and Technology, Shenzhen, China, Minor in FIN — Sept. 2023 – Jun. 2026

- GPA: 3.91/4.0 (95/100)

Nanyang Technological University, Singapore, Summer Exchange — Jun. 2024 – Jul. 2024

- GPA: 5.0/5.0

PROJECTS

Amphibious Robot Design- Project leader — Oct. 2024 – Present

- Designing and implement a lightweight, high-performance amphibious robotic dog
- Developing algorithms for gait, balance, and movement on land and water

Table Tennis Stroke Evaluation System Design- Project member — Feb. 2024 – Oct. 2024

- Implemented real-time ping-pong ball detection using YOLOv5
- Used physical modeling to predict the ball's trajectory and landing point accurately, closely matching the actual trajectory and position
- Synchronized dual-camera capture via STM32, ensuring spatial and temporal consistency in trajectory tracking

Quantitative Investment Competition at SUSTech- Project member — Mar. 2023 – May. 2023

- Aimed to develop and apply effective trading strategies
- Identified market trends and generated buy/sell signals using dual moving average approach
- Applied a latent factor model to uncover hidden factors influencing stock prices

RESEARCH EXPERIENCE

Physical Layer Security for Large-Scale Arrays — May. 2024 - Present

- Concluded that eavesdropping is more likely to occur in the near field targeting far field communications
- Designed physical layer security techniques for mixed-field scenarios
- Utilized the interference caused by signal spectrum differences in mixed-field environments
- Reallocated power under the new model and optimized model to obtain the optimal solution

Hybrid Beamforming Design for Near-field Beam Patterns — Jan. 2024 - Present

- Investigated the impact of discrete phase shifters on near-field beam focusing
- Proposed a new FSE method to characterize near-field beams under discrete phase shifters
- Results show that discrete phase shifters maintain beam focusing in the main lobe

ACTIVITIES & AWARDS

First-Class Student Scholarship, SUSTech	Oct. 2024
Second-Class Student Scholarship, SUSTech	Oct. 2023
University-Level "Outstanding Volunteer" Honor	Jan. 2024
Head of department, Student Union, SUSTech	2022-2024
Peer Mentor, SUSTech, Zhiren College	2023-2024

TECHNICAL SKILLS

Languages: Python, Java, MATLAB, C++

Software & Tool: Linux, PyTorch, LabVIEW, ADS, LaTeX