Tong Zhao

✉ zhaotonguestc@hotmail.com · ✉ 2021080907028@std.uestc.edu.cn · 📞 (+86) 18382419906

[Homepage] · [Google Scholar] · [ORCID] · [GitHub]

🏛 EDUCATION

University of Electronic Science and Technology of China (UESTC)   09/2021 – 06/2025
Yingcai Honors College, undergraduate student
Major: Computer Science and Technology
GPA: 3.99 /4.00   **Average Score:** 92.35 /100   **Rank:** 1 /137   **CET6:** 567   **IELTS:** Learning

📖 RESEARCH EXPERIENCE

Information Fusion and Intelligent Systems Lab, IFFS, UESTC   11/2022 – Now
Research Assistant, advised by Prof. Yong Deng(Google Scholar).

Explore the dimension of the Random Permutation Set   03/2023 – 08/2023
- Inspired by the Rényi information dimension, we proposed the information dimension of the Random permutation Set (RPS), and found the information dimension corresponding to the maximum RPS entropy is 2, which is equivalent to the fractal dimension of Brownian motion and Peano curve.

Explore the linearity in entropy   09/2023 – 12/2023
- We conduct an in-depth exploration of the linear relationship between Deng entropy and the scale of the frame of discernment (SFOD), and find that the slope is nothing else but the information fractal dimension of mass function. This work shows that entropy can not only increase but also increase in a linear way.

📖 PUBLICATIONS

- **Tong Zhao**, Zhen Li, and Yong Deng. "Information fractal dimension of Random Permutation Set." *Chaos, Solitons & Fractals* 174 (2023): 113883. **(Published, JCR 1, IF = 7.8)** Click to view.
- **Tong Zhao**, Zhen Li, and Yong Deng. "Linearity in Deng entropy." *Chaos, Solitons & Fractals* 178 (2024): 114388. **(Published, JCR 1, IF = 7.8)** Click to view.

👥⚙ PROJECT EXPERIENCE

MCU Design and Optimization Based on ARM Architecture [⌗ *GitHub*]   05/2023 – 07/2023
Supervisor: Prof. Jianhao Hu, National Key Laboratory of Wireless Communications
- We designed an ARM-based MCU with extended multiplication and assignment instructions, along with a custom multiplier module for higher computational speed. In on-board testing, it successfully computed convolutions of two 16 dimensions vectors with bits of 32 at a speed of 148,000 convolutions per second.

Whirlwind – An Automatic Ball-Picking Robot [⌗ *GitHub*]   03/2023 – 06/2023
Supervisor: Prof. Xiang Li, School of Aeronautics and Astronautics, UESTC
- We built a ball-picking robot using the K210 development board (for recognition) and the ZL-KPZAR Arduino core board (for control) based on self-designed mechanical structure and datasets. Our project won the **Gold Prize (TOP 1%)** at the exhibition and received the **First Prize for Best Project** at school.

🏅 HONORS AND AWARDS

Scholarship for Outstanding Students in UESTC	2022, 2023
First Prize in the Yingcai-Huawei Scholarship (**TOP 1%**)	2023
Science and Technology Innovation Star in Yingcai Honors College	2023
First Prize for Best Project in the New Engineering Education Curriculum of UESTC (**TOP 1%**)	2023
Self-motivated Star in Yingcai Honors College	2024
New Leineng Scholarship (**TOP 5%**)	2024

🖥 SKILLS

Programming: C language, Matlab, Python, Verilog/VHDL, MySQL
Research software: LaTex, PowerPoint, Excel, Word