

Jun Yang

+86 180-7945-8173 | jun_yang@nudt.edu.cn
National University of Defense Technology, Changsha, China

EDUCATION

National University of Defense Technology

Ph.D Candidate in Brain and Cognitive Science, College of Intelligence Science and Technology

- GPA: 3.66/4.0; Supervisor: Prof. Dewen Hu

Changsha, China

Sept. 2023 - Present

National University of Defense Technology

B.S. in Robotics Engineering, College of Intelligence Science and Technology

- Comprehensive score ranking: 3/32

Changsha, China

Sept. 2019 - Jun. 2023

PAPERS & PATENTS

- Li Ming (teacher), **Yang Jun (co-author)**, Tian Wwenli and Ju Xiangyu. Fusing the spatial structure of electroencephalogram channels can increase the individualization of the functional connectivity network. *Front. Comput. Neurosci.* 17:1263710, 2023
- Hu Dewen, **Yang Jun**, Li Ming, Shen Hui. A Method and System for Decoding Semantic Content of Free Recall Using Stereo-Electroencephalographic. Chinese Patent, CN119884886B, filed on March 19, 2025, and issued on June 11, 2025.
- Wang Yujia, Tian Wenli, **Yang Jun**, Ju Xiangyu, Li Ming and Hu Dewen. HST-SN: A Hierarchical Framework Learning Spatiotemporal Semantic Features From EEG Signals. *IEEE Sensors Journal*. 25: 41821-41835, 2025.
- Yang Jun**, Tian Wenli, Tang Meng, Li Ming, Hu Dewen. Geometry Constrained Functional Connectivity Modelling with Multi-metric Fusion for Robust EEG Biometric Authentication. *Science China Technological Science*, 2025 (in review)
- Working Paper: Shared Neural Representations of Visual Perception and Memory Revealed by Intracranial EEG Decoding (manuscript in preparation)

RESEARCH EXPERIENCE

Research on invasive BCI decoding based on intracranial EEG

Sept. 2024 - Present

- Collected iEEG recordings from over ten participants across both visual perception and free-recall paradigms.
- Developed decoders for visual semantic categories and free-recall semantic categories, demonstrating that neural representations of visual perception significantly enhance semantic decoding in free recall.
- Reconstructed semantic-level images from iEEG during both perception and free recall, revealing shared neural coding between visual experience and memory retrieval.
- Characterized task-related neural dynamics by analyzing directional information flow between brain regions using time-frequency Granger causality and related methods.

Research on EEG based biometric authentication

Sept. 2023 - Jun. 2024

- Developed a graph neural network based EEG authentication framework that explicitly models the spatial topology of EEG channels, achieving state-of-the-art identification accuracy across multiple benchmark datasets.

Other competitions and projects

Sept. 2019 - Jun. 2023

- RoboCup China Open (2021) - Football Robot Simulation (National Third Prize)
- National Collage Student Innovation and Entrepreneurship Competition: Indoor Navigation System Based on IMU and UWB. (National Second Prize)
- National Undergraduate Innovation Program: AR-Glasses-Based Autonomous Navigation under GPS-Denied Environments.
- National Undergraduate Innovation Program: Road-Constrained Deception-resistant Navigation System for Unmanned Ground Vehicles.

HONORS & AWARDS

- New Student Excellence Scholarship Sept. 2023
- Outstanding Student Award of National University of Defense Technology (top 1%) Dec. 2023
- National Encouragement Scholarship (top 3%) 2022

SKILLS

- Language: English (Proficient in academic and daily communication), Chinese (Native)
- Programming: Python, MATLAB, C, C++