LIU, ZENG

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EDUCATION

SHANGHAI JIAO TONG UNIVERSITY   **SHANGHAI, CHN**

Master of Information and Control   *Sept 2021 – Present*

- ***GPA:*** *3.43 | 4.0*
- ***Research interest in:***
  - *Multi-target tracking*
  - *Signal processing*
  - *Information fusion*
  - *Machine learning*
- ***Core courses:*** *Neural Network and Deep Learning, Intelligent Unmanned Swarm System, Numerical Analysis, English for Academic Purposes, etc.*
- ***Honors:***
  - *School Outstanding Graduate*
  - *1st Outstanding Student Scholarship*
  - *2nd Academic Scholarship（2022-23）*

NANJING UNIVERSITY OF AERONAUTICS AND ASTRONAUTICS   **NANJING, CHN**

Bachelor of Detection, Guidance and Control Technology   *Sept 2017 – Jun 2021*

- ***GPA:*** *3.8 | 5.0 (Top 15%)*
- ***Core courses:*** *Signal and Linear System, Pattern Recognition and Image Processing, Database Technology and Application, Digital Circuits and System Design, C Language Programming, etc.*
- ***Honors:***
  - *National Encouragement Scholarship (2019)*
  - *1st Academic Scholarship (2019)*
  - *2nd Academic Scholarship (2018, 20-21)*
  - *Outstanding student scholarship (2018-21)*

RESEARCH EXPERIENCE

RESEARCH ON CONTINUATION TRACKING   **LIANYUNGANG, CHN**

Important participant, Algorithm design (Matlab)   *Feb 2022 – Present*

- Research on multi-target tracking and track initiation **algorithms** based on multi-sensor
- Design the information fusion **algorithm** in a distributed sensor network
- Participate in the construction and integration of simulation **software**

DESIGN OF COMPUTER PROGRAM FOR AUTOMATIC ASSEMBLY SYSTEM   LUOYANG, CHN

Head of software design, Building software structure (Labview)   *Apr 2022 – Mar 2024*

- Built the computer software **architecture** of the automatic assembly system
- Completed the upper computer **programming** independently
- Realized joint debugging with hardware equipment and put it into engineering **application**

RESEARCH ON MULTI UNMANNED BOAT FUSION DETECTION   SHANGHAI, CHN

Important participant, data processing (QT, matlab, python)   *Sept 2021 – Nov 2021*

- **Processed real data** from sensors such as radar and AIS, and fused different tracks
- Created an **image detection dataset**
- Assisted in completing video detection based on **neural networks**

CONSTRUCTION OF A MULTI-UAV COOPERATIVE FLIGHT SOFTWARE   NANJING, CHN

Research Content of Bachelor's Degree Graduation Project   *Jan 2021 – Jun 2021*

- Designed a collaborative **interaction graphical interface** for flight data visualization
- Completed the **programming** of human-computer interaction interface
- Set up a **3D virtual reality environment** for monitoring

PUBLICATION

- **L.Zeng**, G. Xiao, C. Ding, and Y. He, "Track initiation based on adaptive gates and fuzzy Hough transform," Signal Image and Video Processing, 2023,17, 4057–4065.
- Z. Liang, J. Wang, G. Xiao, and **L. Zeng**, "FAANet: feature-aligned attention network for real-time multiple object tracking in UAV videos," Chinese Optics Letters, 2022, 20(8), 081101.
- Y. He, G. Xiao, C. Ding, and **L. Zeng**, "An optimal deployment method of heterogeneous sensors for multi-agent collaborative detection tasks," Aerospace Systems, 2023, 6(2), 249-257.

ACTIVITIES

THE SECOND NATIONAL INFORMATION INTEGRATION CHALLENGE   *May 2022 – Sept 2022*

- *Honors:*
  - 2ND PRIZE
  - 1ST IN DEPLOYMENT

As a team member in an object detection and tracking competition, design algorithms and write text reports

WINTER OLYMPICS SPECIAL PRACTICE ACTIVITIES   *Jan 2022 – Mar 2022*

Participate in teaching support volunteer activities to promote the Winter Olympics culture

SKILLS & INTERESTS

- *Technical:*

- Matlab /Simulink /GUI
- Labview
- Structured Query Language
- Microsoft visual studio
- Adobe Premiere Pro
- Adobe Photoshop
- Latex

NCRE II (National puter Rank II Examination) and puter Rank II Examination in Jiangsu passed

- **▪ *<u>Languages:</u>***

- English,
- Mandarin (Mandarin Level II, Grade A)
- a little Japanese

- **▪ *<u>Interests:</u>***

Awarded in various extracurricular school level competitions, including choir singing, poetry creation, Chinese character dictation, recitation, video editing, cheerleading, etc