Yujing Ju

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🎓 Education

Heriot-Watt University (HWU), Edinburgh, United Kingdom · 2021 – Present

Undergraduate student in Robotics, expected June 2025
Cumulative GPA 3.87/4.0

Ocean University of China (OUC), Qingdao, China · 2021 – Present

Undergraduate student in Computer Science and technology (CS), expected June 2025
Cumulative GPA 3.45/4.0

👥 Experience

Honours Dissertation, Heriot-Watt University · Sep. 2024 – Present

Directed and Heterogeneous Graph Neural Networks for Academic Recommendation   Individual

Mentor: **Wei Pang***(Associate Professor@HWU)*

Brief introduction:

- Investigated directed graph and heterogeneous graph neural networks to enhance academic citation recommendations.
- Proposed a novel Layer-wise Heterogeneous Network combining spectrum-based directed graph convolution and heterogeneous graph attention networks.
- Focused on integrating directed citation relationships and complex heterogeneous node interactions to improve model efficiency and recommendation accuracy.
  Click to visit

FSU Research Intern · June. 2024 – Present

Open Source Project   Core Contributer

Mentor: **Yushun Dong***(Assistant Professor@FSU)*

Brief introduction:

- Research on graph neural network in Model Security.
- Optimize and integrate existing related models.
  Click to visit

Data Mining Project · June. 2023 – Present

Group Recommendation with Hypergraph Neural Network   Individual

Mentor: **Yanwei Yu***(Professor@OUC)*

Brief introduction: A recommendation system related research project.

- The hypergraph results are innovatively introduced for strict temporary group recommendation, which achieves better results in both commodity recommendation and user recommendation tasks.
- The new model improves the recommendation accuracy of the best existing model MGBR by about 5%.
  Click to visit

Robotics Projects · Feb. 2024 – May. 2024

C, Python, Jetson nano, Arduino uno, 24-channel steering control board   Robot Project

Mentor: **Shengke Wang***(Associate Professor@OUC)*

Brief introduction:

- Computer Vision based object recognition and grasping.
- Insect capture achieved by hexapod robots.
  Click to visit

AI Algorithm Engineer Intern   July. 2024 – Sep. 2024

ROS, SLAM, FAST-LIO, VINS-FUSION, Ego-Planner, Fast-Racing, Point-LIO AirSim, UnrealEngine   UAV
Project

Employer: ***Hydrogen Source Intelligent Technology Co., LTD***

Brief introduction:

- Optimize the UAV path planning algorithm.
- Lightweight large model.
- Build physical simulated environment.
- Develop lightweight VIO devices based on Binocular Camera and IMU.

⚙ Skills

- Programming Languages: Python, C, C++, Java, HTML, CSS, Javascript, PHP, Scala
- Software Skill: Matlab, MySQL, ROS, UnrealEngine, AirSim
- Technical Skill: Markdown, Latex, ego-planner, Fast-LIO, Point-LIO, 3DGS-SLAM, VINS-Fusion
- Data Science Skill: Pytorch, Numpy, Pandas, Scipy, Tensorflow, Matplotlib, Hadoop, Spark
- Embedded Development skill: STM32, Raspberry Pi, Arduino

♡ Honors and Awards

Innovation and Entrepreneurship Scholarship	2022
University-Level Outstanding Youth Volunteers	2022

ⓘ Miscellaneous

- Languages: English - Fluent, Mandarin - Native, Japanese - Basic Proficiency
- GRE score: 146(Verbal) + 170(Quantitative)
- Website: **https://juyujing.com**
- GitHub: **https://github.com/juyujing**
- YouTube: **https://www.youtube.com/user/dyodn**