

EDUCATION	School of Electrical Engineering and Automation, Wuhan University Hubei, China <i>Bachelor of Engineering in Automation</i> 2021 - 2025 (expected) <ul style="list-style-type: none">GPA: 3.21/4.00.Core Courses: C Programming Language(94), Linear Algebra(97), Design of Power Electronics Equipment and System(91).
PUBLICATIONS	<ol style="list-style-type: none">Yang, Z., Xie, F., Zhou, J., Yao, Y., Hu, C., & Zhou, B. (2024). AIGDet: Altitude-Information-Guided Vehicle Target Detection in UAV-Based Images. IEEE Sensors Journal.Yang, Z., Zhou, J., Duan, C., Li, B., Zhou, B., & Li, Q. (2025). TrajMoE: Toward Multimodal Trajectory Prediction with Mixture of Experts. Information Fusion. (Under review)
PROJECTS	Altitude-Information-Guided Vehicle Target Detection in UAV-Based Images. <i>First author Supervisor: Dr. Jian Zhou</i> 2023.10 - 2024.02 <ul style="list-style-type: none">Proposed a Scale-Adaptive Target Proposal Module(SATP), guided by altitude priori information, to direct the RPN in generating more adaptable responses to targets of varying scales.Proposed Dynamic Feature Refinement Module(DFRM) optimizes feature extraction in the FPN with altitude priori information, reducing information loss. Toward Multimodal Trajectory Prediction with Mixture of Experts. <i>First author Supervisor: Prof. Qingquan Li</i> 2024.06 - 2025.03 <ul style="list-style-type: none">Presents an innovative adaptation of the Mixture of Experts (MoE) architecture, called TrajMoE, specifically designed for trajectory prediction tasks.Leverages an Encoder-Decoder architecture similar to Transformers, where the encoder includes a latent query multi-head attention (MQA) mechanism and an MoE block.Achieves competitive results compared to dense baselines, with both quantitative and qualitative analyses revealing strong connections between experts and trajectory predictions. Undergraduate Thesis: Dynamic Vehicle Spatio-Temporal Modelling Methods Incorporating High Precision Maps <i>Reasercher Supervisor: Dr. Jian Zhou</i> 2024.09 - 2025.06 <ul style="list-style-type: none">Reframes the traditional two-stage process—object detection followed by trajectory forecasting—as a single trajectory refinement problem.Design a novel refinement transformer that processes LiDAR point clouds, RGB images and high-definition maps to jointly infer object presence, pose, and multi-modal future behaviors.
AWARDS	<ul style="list-style-type: none">State Level, Innovative Entrepreneurship Programme for University Students 2024.06First Prize, ‘Huazhong Cup’ Mathematical Modelling Challenge 2023.05
SKILLS	Languages: Mandarin(native), Cantonese(native), English. Programming: Python, C++, Pytorch.