ZIYU WU

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SUMMARY

Master 1 student of École Polytechnique, majoring in Artificial Intelligence and Advanced Visual Computing. Currently looking for a 5-6 month research internship from April 2025 and PhD position in 2025 Fall. Research Interest in AI, computer vision, graphics, machine learning, deep learning, etc.

EDUCATION BACKGROUND

École Polytechnique, France *September 2023 - Present*
Artificial Intelligence and Advanced Visual Computing Master of Science and Technology

Southern University of Science and Technology, China *September 2019 - July 2023*
Intelligence Science and Technology | GPA: 3.66/4.0 Bachelor of Engineering
• **Published Paper:** *Evolutionary Multi-Objective Deep Reinforcement Learning for Autonomous UAV Navigation in Large-Scale Complex Environments (GECCO 2023)*

INTERNSHIP EXPERIENCE

Animaj, France
Engineer Intern *March 2024 - September 2024*
Design and implement a 3D mesh auto-encoder to accurately capture shapes and compress them efficiently, enabling reduced computational load and advanced applications like motion modeling and text-to-pose translation.

King Abdullah University of Science and Technology, Saudi Arabia
Research Assistant *September 2022 - May 2023*
Cooperate with the optical laboratory and use the generative model to recover the spectrum of the RGB image. The spectral recovery of images containing single and dual wavelengths was successfully performed.

Guangdong Zhuowei Network Co., Ltd., China
Mechine Learning Intern *August 2022 - September 2022*
Mainly responsible for the research and development of vehicle-road cooperation of autonomous vehicles realized through V2VNet. Successfully implemented in the CARLA simulated environment and conducted corresponding tests.

PROJECT EXPERIENCE

Genshin VTuber
Final project of course INF573–Image Analysis and Computer Vision. Implement a real-time Genshin VTuber base on head pose estimation and facial feature point detection. Demonstrated superior accuracy and stability in face recognition and tracking in real-time performance.

Classification-Based SAEAs for Expensive MOKPs
A novel surrogate-assisted evolutionary algorithm (SAEA) for multi-objective knapsack problems (MOKPs) uses classifiers to predict dominance relations and crowding distances, reducing computational resources and evaluation time. This approach enhances convergence, diversity, and outperforms existing methods in efficiency, scalability, and solution quality.

Deep Reinforcement Learning MOEA for Autonomous UAV Navigation
Combining multi-objective evolutionary algorithm and deep reinforcement learning algorithm together, and using evolutionary algorithm to find the optimal hyperparameters that make Unmanned Aerial Vehicle performs well in multi-objective field. The results have been published as a full paper in GECCO 2023.

SKILLS

Technical: Python, C/C++, Java, Linux, Machine Learning, Deep Learning, AI, Computer Vision, Graphics, Multi-objective Algorithms

Language: English (fluent), Chinese (native), Cantonese (native), French (primary)