



Tianyu Yan

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Multimodal LLMs · LLM Agents & Role-Playing · Interactive Narrative & AI Society Simulation · Visual Segmentation

Summary

Ph.D. student at Dalian University of Technology (IIAU Lab, advised by Prof. Huchuan Lu), working on visual segmentation, multimodal large language models, and LLM agents. First, student-first, or co-first author of 6 published or accepted papers (CVPR Highlight, ECCV, IJCAI, TIP, TGRS, ACCV). At Alaya Lab, developed and launched the digital human MIO and the AI society platform Synthetic World.

Education

Dalian University of Technology	Ph.D. Student	IIAU Lab, advisor: Prof. Huchuan Lu	Sep 2025 – Present
Dalian University of Technology	M.Eng. in Computer Science and Technology	IIAU Lab	Sep 2023 – Jun 2025
Dalian University of Technology	B.Eng. in Artificial Intelligence	Average score 91.6	Sep 2019 – Jun 2023

Research & Internship Experience

Alaya Lab Research Intern	Jan 2026 – Oct 2026
Developed the algorithms and systems behind the digital human MIO and the AI society platform Synthetic World, from the models to the live product.	
The University of Tokyo Visiting Student (Exchange)	Oct 2025 – Jan 2026
Researched proactive assistance in continuous egocentric video; the resulting paper Vinci2 is accepted to ECCV 2026.	

Publications

Published / Accepted (bold = me; * equal contribution; Student-first = first student author after the advisor)

Co-first	Vinci2: Providing Proactive Assistance in Continuous Egocentric Videos. Sitong Gong, Tianyu Yan [*] , Caixin Kang [*] , Bo Zheng, ..., Yoichi Sato, Yifei Huang. ECCV 2026.
Student-first	HFP-SAM: Hierarchical Frequency Prompted SAM for Efficient Marine Animal Segmentation. Pingping Zhang, Tianyu Yan , Yuhao Wang, Yang Liu, et al. IEEE TIP 2026. CCF-A
Student-first	Fantastic Animals and Where to Find Them: Segment Any Marine Animal with Dual SAM. Pingping Zhang, Tianyu Yan , Yang Liu, Huchuan Lu. CVPR 2024 Highlight. CCF-A
First	MAS-SAM: Segment Any Marine Animal with Aggregated Features. Tianyu Yan , Zifu Wan, Xinhao Deng, Pingping Zhang, Yang Liu, Huchuan Lu. IJCAI 2024. CCF-A
First	TransY-Net: Learning Fully Transformer Networks for Change Detection of Remote Sensing Images. Tianyu Yan , Zifu Wan, Pingping Zhang, Gong Cheng, Huchuan Lu. IEEE TGRS 2023. JCR Q1
First	Fully Transformer Network for Change Detection of Remote Sensing Images. Tianyu Yan , Zifu Wan, Pingping Zhang. ACCV 2022.

Projects

Digital Human MIO: Virtual Streamer and AI Companion	2026
Alaya Lab	
• Conversational system for a digital-human streamer and companion, served through an OpenAI-compatible API for custom front ends, companion devices, and live-stream interaction. • A Qwen3-8B SFT controller handles intent recognition, tone guidance, and module routing. • Personality, experience, and knowledge stores combined with EverMemOS long-term memory that evolves with each conversation; expression-to-motion mapping drives the avatar.	
AI Society: Synthetic World	2026
Alaya Lab society.alayagames.online	
• A self-evolving AI community: users define a world and its characters, and AI residents post, reply, and react as events unfold. • Users can watch or steer the story through the "Next Act" feature; past events and character states shape what happens next. • Full-stack and live: Node.js / TypeScript backend for structured LLM generation, event state, and scheduled community updates; Expo React Native client for iOS, Android, and web.	

Skills & Honors

Programming	Python, PyTorch, C++ , Linux, TypeScript / Node.js, React Native
LLMs	SFT, self-play reinforcement learning, memory and retrieval augmentation, LLM-as-a-judge evaluation
Research	Benchmark and dataset construction, human evaluation, longitudinal user studies
Language	English (TOEFL 91)
Regional Gold Award, Huawei Ascend AI Developer Kit Competition (first contributor)	Dec 2023
Special Prize, Liaoning Province Innovation and Entrepreneurship Competition (first contributor)	Aug 2023
Second Prize, National Undergraduate Computer Design Competition (first contributor)	Dec 2021