Jinzhou Tang

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Education

University of California, San Diego - California, USA **Sept. 2025 - present**
Master's Degree in Computer Science

Sun Yat-sen University - Shenzhen, China **Sept. 2021 - July 2025**
Bachelor's Degree in Intelligent Science and Technology *GPA 3.8/4.0*

- Major Courses: Program Design (97/100), Computer Vision (93/100), Deep Learning (94/100), Data Structures & Algorithms (89/100) and Image Processing (91/100).

Publications

- Jinzhou Tang, Shen Zhao ✉ et al. (2024). *VertFound: Synergizing Semantic and Spatial Understanding for Fine-grained Vertebrae Classification via Foundation Models.* Medical Image Computing and Computer Assisted Intervention – MICCAI 2024. **Early Accept**.
- Jusheng Zhang, Yijia Fan, Kaitong Cai, Jinzhou Tang, Keze Wang✉ et al. (2025). *OSC: Cognitive Orchestration through Dynamic Knowledge Alignment in Multi-Agent LLM Collaboration.* - EMNLP 2025. Accept.
- Jusheng Zhang, Yijia Fan, Kaitong Cai, Jinzhou Tang, Keze Wang✉ et al. (2025). *Why Keep Your Doubts to Yourself? Trading Visual Uncertainties in Multi-Agent Bandit Systems.* International Conference on Machine Learning - NeurIPS 2025. Under Review.
- Jinzhou Tang, Keze Wang✉ et al. (2026). *HiVA: Self-organized Hierarchical Variable Agent via Goal-driven Semantic-Topological Evolution.* - AAAI 2026. Under Review.
- Jinzhou Tang, Keze Wang✉ et al. (2026). *Beyond Pixel Intelligence: Introducing Geometric-aware Priors for Video-based Embodied Models via Spatio-temporal Alignment.* - AAAI 2026. Under Review.

Technical Skills

Programming Languages: Python, Golang, C#, C/C++, JavaScript, MATLAB
Frameworks: PyTorch, TensorFlow, MindSpore
Tools: Git, Linux, Docker, VSCode
Others: Robotics, Control Theory, Embedded Development
Languages: Chinese, English

Honors and Awards

- 2024/04 - **School First-Class Award** in the National Statistical Modeling Contest.
- 2023/12 - Huawei Intelligent Foundation Scholarship.
- 2023/10 - **Provincial Second-Class Award** in the National Mathematical Modeling Contest.
- 2023/04 - Award of outstanding individual in work-study assistance.
- 2022/12 - **Third-Class** scholarship in the first year of college.
- 2022/08 - **First Place** in the School-level Electronic Design Contest.

Research Experience

CoRe Lab, Peking University **May. 2024 – Aug. 2024**
Research Intern *Beijing, China*

- Supervisor: Dr. Yixin Zhu (Video Understanding).
- Collaborated with research group members to construct a large-scale dataset and corresponding benchmark based on official biological laboratory scenes. Took Primary responsibility for data construction and baseline model performance evaluation in the object detection and tracking sections. Currently preparing for submission to **T-PAMI**.

HCP Lab, Sun Yat-Sen University **Jun. 2023 – present**
Research Assistant *Guangzhou, China*

- Supervisor: Dr. Xiaodan Liang (Embodied Intelligence), Dr. Shen Zhao (Medical Imaging), Dr. Keze Wang (Computer Vision).
- Coordinate daily research activities in the lab and assist the supervisor in allocating, advancing, and executing various research tasks as the project leader. The current research focuses are computer vision, multi-modal large models, and embodied intelligence.
- Primarily responsible for project management, literature review, feasibility analysis, method design, coding, and experiment design, while collaborating with multiple universities (CMU, MIT, UMD, etc.), companies (Alibaba, Meituan, Snap, etc.), and research institutions (Peng Cheng Laboratory).

Projects

Franka Research 3 Retailing Senario Solution for Shelf Organization **July 2025 - Sep. 2025**

∗ Implemented an intelligent shelf organizing system using Franka Research3, which receives linguistic instructions and executes corresponding robot arm trajectories, built with Molmo, AnyGrasp, and MoveIt (ROS2).

DiCLS: A Deep Fusion Cross Modality Neural Network for Plant Disease Classification **Dec. 2023 - Jan. 2024**

∗ Developed a leaf disease classification system using the DiCLS model, incorporating contrastive learning and fine-tuning techniques to enhance accuracy and performance.

Encyclopedia Application Supported by Large Language Models **Jul. 2023 - Sept. 2023**

∗ Built a conversational chatbot with encyclopedia content knowledge based on a privately fine-tuned version of the offline ChatGLM3 model and the RAG method.

Video Retrieval Project based on Vision Language Models **Feb. 2022 - Apr. 2022**

∗ Implementing image retrieval and image description based on the CLIP and Clipcap models respectively, achieving video retrieval and summarization on a large-scale online video database.

UR5 Surgical Robotic Arm Based on Reinforcement Learning and Modern Robotics **Feb. 2022 - Apr. 2022**

∗ Implemented a collision-free path planning module based on Unity and a trajectory planning module based on reinforcement learning & inverse kinematics, enabling the surgical measurement tool carried by the robotic arm's end effector to accurately reach the specified patient wound for positioning and measurement without collision.

Practical Experience

Elysian Intelligence, LLC. **Apr. 2025 – present**
Founder & CEO *Huizhou, China*

- Led the conceptualization, development, and promotional operations of an AI-native academic browser, overseeing product design, backend development, and marketing.
- Spearheaded the vision at Elysian Intelligence to develop advanced embodied AI agents imbued with personality, emotion, memory, and unique experiences. Drove initiatives to foster meaningful social connections, alleviate isolation, and cultivate vibrant communities, empowering individuals through self-expression and lasting fulfillment in an Elysian world.

Meituan Co., Ltd **Aug. 2024 – Feb. 2025**
Research Intern *Beijing, China*

- Led the end-to-end development of a spatio-temporal reasoning framework, including **ideation, methodology design, experiment implementation, and manuscript preparation**, addressing challenges in task-driven embodied intelligence.
- Directed the creation of a hierarchical dataset for human behavior modeling, **designing and implementing data annotation protocols and benchmarking frameworks** to evaluate motion diversity and fidelity.
- Authored and finalized both research papers, serving as the primary contributor in coordinating collaborative efforts and ensuring the completion of all experimental and writing tasks.

Tuoyuan Intelligence Co., Ltd **Feb. 2024 – May 2024**
Development Intern *Guangzhou, China*

- Participated as a core member in the development of an **AI-based emotional companion system** using **large language models**, fully utilizing multi-modal models and a multi-agent framework. Took responsibility for coding and testing the workflow for image generation and retrieval.

Campus Experience

Huawei Intelligence Foundation Club **Sept. 2023 – Sept. 2024**
Technical Director *Shenzhen, China*

- Organized multiple internal technical training sessions within the club, serving as the speaker to share experiences in various fields such as deep learning, software development, and competition training, with an average participation of over 30 people.
- Organized **more than ten club activities** as the leader, involving **over seventy people** from **nine colleges** across the campus.
- Led the student team to participate in competitions **four times** and authored problems for numerous school-level and provincial-level competitions.

ACM/ICPC Team **Apr. 2022 – Sept. 2023**
Team Leader *Shenzhen, China*

- Engaged in several training program and seminar with team members to advance coding skills and problem solving abilities.
- Participated in **over twenty** online individual programming competitions, ranking in the **top 5%** in the Asia region multiple times.

Team of Multi-Media, Publicity Department of Sun Yat-sen Univertisy **Sept. 2021 – Sept. 2023**
Post-Production Editor *Guangzhou, China*

- Participated in team cooperation to accomplish several video clips. Mainly responsible for post editing of videos shot by team members.
- Organized the establishment of the Multi-Media Team within the Publicity Department of the SYSU, responsible for operating and publishing videos on SYSU's official accounts (Bilibili, Wechat, Douyin). Videos published by the team have accumulated over **5 million** views across all platforms.
- Developed an automated video production workflow integrating WeChat bot and an efficient video retrieval system from an 8TB private database based on CLIP model, complemented by a user-friendly interface designed using Vue.