Andrew Lee

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Education

University of California, Davis May 2023 - Present
Ph.D. in Computer Science Davis, CA
- Advisor: Iman Soltani, Ph.D.

University of California, Davis Sep 2021 - May 2023
Master of Science in Computer Science (changed degree objective to Ph.D.) Davis, CA

Hanyang University Feb 2020
Bachelor of Science in Mechanical Engineering Seoul, South Korea
- Undergraduate Thesis: Compact Motor-Driven Walk-Support Device for Reducing Muscle Load
- Advisor: Sukkee Um, Ph.D.

Experience

Laboratory for AI, Robotics and Automation (LARA) Jun 2022 – Present
Graduate Student Researcher Davis, CA
- Led multiple robotics research projects [1, 2] utilizing the *ALOHA 2* bimanual manipulation setup.
- Contributed to several Caltrans-funded projects, including the development of an ADA ramp detection and measurement system and an Infrared Advanced Driver Assistance System (IR-ADAS) for enhanced safety in low-visibility conditions.

Publications

‡ indicates equal contribution.

[2] Ian Chuang‡, **Andrew Lee**‡, Dechen Gao, Iman Soltani. **Active Vision Might Be All You Need: Exploring Active Vision in Bimanual Robotic Manipulation**. *arXiv preprint. 2024.*

[1] **Andrew Lee**, Ian Chuang, Ling-Yuan Chen, Iman Soltani. **InterACT: Inter-dependency Aware Action Chunking with Hierarchical Attention Transformers for Bimanual Manipulation**. *Conference on Robot Learning (CoRL). 2024.*

Projects

ADA-Ramp
Caltrans
- Developed and implemented a comprehensive ramp detection and measurement pipeline, converting large-scale raw point cloud data into accurate bounding boxes, slope calculations, and width measurements.
- Utilized Faster R-CNN for precise ADA ramp detection within the pipeline.

IR-ADAS
Caltrans
- Developed an Infrared Advanced Driver Assistance System (ADAS) to enhance safety and operational efficiency for emergency tow trucks and snowplows in low-visibility environments.
- Implemented the system on Jetson Nano Orin using TensorRT and YOLOv7, enabling real-time obstacle detection and hazard avoidance for improved situational awareness.

Awards and Honors

2024 Computer Science Graduate Group (GGCS) Summer Ph.D. Fellowship May 2024