

# I-Chun (Arthur) Liu

Los Angeles, CA, United States

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## Education

### University of Southern California

DOCTOR OF PHILOSOPHY, COMPUTER SCIENCE (ROBOTICS & AI)

Aug 2023 - Dec 2026 (Expected)

Los Angeles, CA

### University of Southern California

MASTER OF SCIENCE, COMPUTER SCIENCE

Jan 2021 - May 2023

Los Angeles, CA

### University of California, Los Angeles

MASTER OF SCIENCE, COMPUTER SCIENCE

Oct 2014 - Jun 2016

Los Angeles, CA

### University of Wisconsin-Madison

BACHELOR OF SCIENCE, COMPUTER SCIENCE

Sep 2010 - May 2014

Madison, WI

## Selected Publications

- **I-Chun Arthur Liu**, Krzysztof Choromanski, Sandy Huang, and Connor Schenck. CLAMP: Contrastive Learning for 3D Multi-View Action-Conditioned Robotic Manipulation Pretraining. In *Robotics: Science and Systems (RSS)*, 2026.
- **I-Chun Arthur Liu**, Jason Chen, Gaurav S. Sukhatme<sup>†</sup>, and Daniel Seita<sup>†</sup>. D-CODA: Diffusion for Coordinated Dual-Arm Data Augmentation. In *Conference on Robot Learning (CoRL)*, 2025.
- **I-Chun Arthur Liu**, Sicheng He, Daniel Seita<sup>†</sup>, and Gaurav S. Sukhatme<sup>†</sup>. VoxAct-B: Voxel-Based Acting and Stabilizing Policy for Bimanual Manipulation. In *Conference on Robot Learning (CoRL)*, 2024.
- Gautam Salhotra\*, **I-Chun Arthur Liu\***, and Gaurav S. Sukhatme. Learning Robot Manipulation from Cross-Morphology Demonstration. In *Conference on Robot Learning (CoRL)*, 2023.
- Gautam Salhotra\*, **I-Chun Arthur Liu\***, Marcus Dominguez-Kuhne, and Gaurav S. Sukhatme. Learning Deformable Object Manipulation from Expert Demonstrations. In *IEEE Robotics and Automation Letters (RA-L)* and *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2022.
- **I-Chun Arthur Liu\***, Shagun Uppal\*, Gaurav S. Sukhatme, Joseph J. Lim, Peter Englert, and Youngwoon Lee. Distilling Motion Planner Augmented Policies into Visual Control Policies for Robot Manipulation. In *Conference on Robot Learning (CoRL)*, 2021.

\* denotes equal contribution. <sup>†</sup> denotes equal advising.

## Research Experience

### Google DeepMind

STUDENT RESEARCHER. HOSTED BY CONNOR SCHENCK.

- 3D pre-training framework for robotic manipulation.

June 2025 - Dec 2025

Mountain View, CA, United States

### Amazon Robotics

APPLIED SCIENTIST INTERN

- Targeted bin picking research (robotic manipulation).

May 2023 - August 2023

MA, United States

### University of Southern California, Robotics Embedded Systems Laboratory (RESL)

RESEARCH ASSISTANT (PART-TIME, PAID POSITION). ADVISED BY PROF. GAURAV SUKHATME.

- Published three papers (CoRL 2021, RA-L + IROS 2022, CoRL 2023) as first author. Research interests: reinforcement learning and vision for robotics.

January 2021 - May 2023

Los Angeles, CA, United States

### Academia Sinica (Institute of Information Science), Multimedia Technologies Laboratory

RESEARCH ASSISTANT (FULL-TIME, PAID POSITION). ADVISED BY PROF. HONG-YUAN MARK LIAO AND PROF. LI-FEN CHEN.

- Conducted research on computer vision in topics including object detection and instance segmentation.

January 2019 - December 2020

Taipei, Taiwan

## Achievements

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**2025 - USC URAP Funding**, Assisted my advisee, Jason, in securing this funding to support his work on my research project.

**2023 - USC 1-Year Fellowship**, University of Southern California - Viterbi School of Engineering (awarded to selected PhD students).

**2023 - Computer Science Best Research Award**, University of Southern California - Viterbi School of Engineering (MS Award).

## Mentoring

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**USC Undergraduate Students:** Jason Chen (CoRL 2025, ICRA 2026, Current)

**USC Masters Students:** Sicheng He (CoRL 2024) → PhD at UC Irvine, Hanwen Fan (Current) → PhD at Iowa State University

**External Collaborators:** QJ Tsway (Current)

## Talks

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**2026** ICLR Expo Talk with the Robot Vision Team from Google DeepMind: invited talk on CLAMP (Apr.)

Google DeepMind: research presentation on CLAMP (Mar.)

USC PhD Thesis Proposal: “3D Representations for Sample-Efficient Robotic Bimanual Manipulation” (Feb.)

**2025** Google DeepMind: research presentation on D-CODA (Jul.)

USC PhD Qualifying Exam: “VoxAct-B: Voxel-Based Acting and Stabilizing Policy for Bimanual Manipulation” (Mar.)

## Services

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**Reviewer** CoRL 2022 to 2025; WAFR 2024; ICRA 2025 to 2026; IROS 2026

## Teaching

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**Spring 2025**, Teaching Assistant - USC CSCI 572: Information Retrieval and Web Search Engines (Master’s Level), Saty Raghavachary.

**Fall 2024**, Teaching Assistant - USC CSCI 545: Introduction to Robotics (Master’s Level), Stefanos Nikolaidis.

## Work Experience

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### Appier

*October 2017 - April 2018*

SOFTWARE ENGINEER, FRONTEND

*Taipei, Taiwan*

- Maintained and developed new features for dynamic creatives generator tool using React, Redux, JavaScript, and CSS.

### Mozilla (Firefox DevTools Debugger)

*November 2016 - November 2017*

OPEN SOURCE CONTRIBUTOR

*GitHub*

- Made 35 contributions, from small UI fixes to significant features, to Firefox’s new DevTools Debugger, which is written in React and Redux.

### National Development Council

*August 2016 - August 2017*

FOREIGN LANGUAGE SPECIALIST — CONSCRIPT

*Taipei, Taiwan*

- Translated social/cultural development policy documents from and into Chinese and English.