

# 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)

August 2023 -

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

October 2014 - June 2016

Los Angeles, CA

### University of Wisconsin-Madison

BACHELOR OF SCIENCE, COMPUTER SCIENCE

September 2010 - May 2014

Madison, WI

## Publications

- **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 *Under Review*, 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. † denotes equal advising.

## Research Experience

### Amazon Robotics

APPLIED SCIENTIST INTERN

May 2023 - August 2023

MA, United States

- Targeted bin picking research (robotic manipulation).

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

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

January 2021 - May 2023

Los Angeles, CA, United States

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

### 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.

January 2019 - December 2020

Taipei, Taiwan

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

## Achievements

**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).

**2016 - PlacetoStudy Featured in The Daily Bruin Newspaper**, A website that helped students find good locations for studying around campus.

## Mentoring

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**USC Masters Students:** Sicheng He (CoRL 2024), Hanwen Fan (Current)

**USC Undergraduate Students:** Jason Chen (Current)

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

## 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.

## Services

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

## 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.

## Side Projects

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### Place to Study

*June 2016 - November 2016*

INDEPENDENT PROJECT

*Los Angeles, CA*

- Designed website (Place to Study) for students to find locations to study around campus, which had three main features: search UI for discovering locations, CMS for adding and reviewing new locations, and ratings and review system.

### Master's Capstone Project (UCLA)

*June 2015 - June 2016*

INDEPENDENT PROJECT

*Los Angeles, CA*

- Designed a platform to connect businesses to their customers. The platform consisted of two applications: a web CMS for businesses to manage their store information and promotions and an iOS app for customers that provided easier access to their favorite stores.