

Jared Mejia

EDUCATION

¹Carnegie Mellon University, M.S., Machine Learning

August 2022 - May 2024, Cumulative GPA: 4.0/4.0

Pomona College, B.A., Computer Science and Mathematics

August 2018 - May 2022, Cumulative GPA: 4.0/4.0

EXPERIENCE

²CMU Robotics Institute and Machine Learning Department, Graduate Student Researcher

September 2022 - Present, Advisors: Abhinav Gupta and Katerina Fragkiadaki, Mentor: Victoria Dean

Research focus: pretraining for robots, multisensory learning, manipulation, large-scale sim-to-real transfer, learning visual affordances from human videos

Checkr, Inc., Software Engineering Intern

May - August 2022

Enhanced the core ML pipeline of the company's product, leading to greater accuracy and efficiency in production. Training transformer-based models for natural language processing.

³UC Berkeley EECS, NSF SUPERB Program Participant

June - August 2021, Advisor: Murat Arcak

Research focus: applications of statistical learning theory to data-driven methods in control theory, developed a library for data-driven reachability analysis of nonlinear systems.

⁴Pomona College, Research Assistant

August 2020 - May 2022, Advisor: Anthony Clark

Research focus: visual navigation, domain transfer, sim-to-real transfer

Cadence Design Systems, Product Engineering Intern

May - August 2020

Worked on automating the management of clusters for a cloud-based AI platform.

Publications, Preprints, and Projects

Hearing Touch: Audio-Visual Pretraining for Contact-Rich Manipulation^{1,2}

- Designed a novel method of leveraging large-scale audio-visual pretraining using transformers to boost real-world robotic manipulation performance for contact-rich tasks
- In Submission at the *IEEE International Conference of Robotics and Automation (ICRA) 2024*

World Models for Multi-Task Robotic Pretraining¹

- Developed a novel approach to pretraining representations using shared world models across multiple robotic manipulation tasks with offline reinforcement learning

Investigating Neural Network Architectures, Techniques, and Datasets for Autonomous Navigation in Simulation⁴

- Published at *IEEE Symposium Series on Computational Intelligence (SSCI) 2021*

DaDRA: A Python Library for Data-Driven Reachability Analysis³

- Built library for data-driven reachability analysis of nonlinear systems, *arXiv preprint 2021*

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[Website](#)

[GitHub](#)

[LinkedIn](#)

SKILLS

Machine Learning

Mathematics

Robotics

Computer Vision

Reinforcement Learning

AWARDS - Pomona College

Rena Gurley Archibald High Scholarship Prize - highest rank in scholarship of graduating class

Summa Cum Laude

Phi Beta Kappa - Junior Elect

Pomona College Scholar

SCIAC All-Academic Team

First Team All-SCIAC - Varsity Men's Soccer

Programming

Python, PyTorch, SQL, Java, C, R, Git

Teaching Assistant

Intermediate Deep Learning (CMU)

Machine Learning (Pomona)

Language and Theory of Computation (Pomona)

Advanced Programming and Data Structures (Pomona)

Intro Computer Science (Pomona)

Principles of Microeconomics (Pomona)