

# Omar Rayyan

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## EDUCATION

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**University of California, Los Angeles (UCLA)**

September 2025 - Present

*PhD Student*

**New York University (NYU)**

August 2021 - May 2025

*Double Major in Electrical Engineering & Computer Science*

**GPA: 4.0/4.0 (Summa Cum Laude)**

## EXPERIENCES

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**GRAIL (NYU Courant)** — Advised by Prof. Lerrel Pinto

January 2024 - Present

*Research Assistant*

*New York, US*

- Currently working on a MuJoCo based sim2real learning project in collaboration with **Allen AI**.
- Lead the **UntidyBot** project, a mobile manipulation framework designed to execute logical sequential actions in diverse environments beyond standard pick-and-place tasks, in collaboration with **Mahi Shafiullah**.
- Open-sourced **MuJoCo AR**, a plugin enabling real-time integration of ARKit data from iOS devices to control MuJoCo frames and real robots. Installed 20k times since release.

**PAIR Lab (Georiga Tech)** — Advised by Prof. Animesh Garg

July 2024 - Present

*Research Assistant*

*Atlanta, US*

- Scaling data collection for imitation learning using Isaac-Sim and MuJoCo, enabling large-scale parallelized data collection via pose-following devices. Our **COBALT** project is currently in-submission for release.

**CAIR (NYU AD)** — Advised by Prof. Anthony Tzes

September 2022 - Present

*Research Assistant*

*Abu Dhabi, UAE*

- Workd on a scalable multi-view interface for cross-embodiment learning. It allows UMI to use a third-person camera input while mitigating domain shifts. **MV-UMI** is currently in-submission.
- Developed a surgical robotics controller to track trajectories within enclosed body cavities while minimizing insertion point impact on the skin. Published and presented this work at **ICAR 23'**.

**Google**

Jul 2023 - Sep 2023

*Software Engineering Intern*

*Munich, Germany*

- Developed a tool to automatically evaluate changes in resource configurations before their integration into the Google Cloud reliability pipeline
- My project earned an award by the team for creating a direct impact on their workflow during my internship

**Applied Interactive Multimedia (AIM) Lab** — NYUAD

February 2022 - Sep 2022

*Student Researcher*

*Abu Dhabi, UAE*

- Worked on **KATIB** by developed rehabilitation tasks using kinesthetic feedback via under-screen magnets to aid post-stroke recovery, in collaboration with Cleveland Clinic Abu Dhabi physicians.

**ProgressSoft Corporation**

Jul 2022/23 - Sep 2022/23

*Software Engineering Intern*

*Amman, Jordan*

**LEBSI**

Jul 2022 - Jul 2023

*Founder and Developer*

*Abu Dhabi, UAE*

## AWARDS AND HONORS

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- IEEE Best Project Prize** 2025
- Awarded 2nd Best Project Prize for my bachelor thesis across the UAE.
- Comma.ai Controls Competition** 2024
- 1<sup>st</sup> place in comma.ai's controls challenge by training a DDPG reinforcement learning agent to steer a car
- IEEEExtreme Coding Competition Podiums** 2022/23 & 2023/24
- Led a team to rank 3<sup>rd</sup> in 2023 and 4<sup>th</sup> in 2022 across the region at IEEE's programming competition
- Alfred H. Bloom Scholar** 2024
- Granted annually to 1 student for excellence in experiential learning and academic performance - [Letter](#)
- Deep Learning Graduate Course Competition** 2024
- Led an undergraduate team to podium in the graduate-level deep learning course competition at NYU
- Cambridge Outstanding UK Learner Award** 2021
- Achieved the highest mark in country in my Physics A-Level, and across 7 IGCSEs

## SELECT PROJECTS

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- UntidyBot** May 2024 - In Progress
- Mobile manipulation framework for executing logical sequential actions in diverse environments beyond pick-and-place tasks with PhD Mahi Shaifullah
- Portable Framework for Scalable Robot Policy Learning** May 2024 - In Progress
- Leading graduation project in creating a portable device for portable non-teleoperation data collection.
  - Implemented a data-processing and training pipeline for the Action Diffusion Policy and VQ-BeT architectures.
- MuJoCo AR** August 2024
- A [plugin](#) that enables the streaming of ARKit data from a connected iOS device for robot teleoperation in MuJoCo frames and beyond. Installed 12k+ times in the past two months
  - Designed and implemented a list of environments and tasks in MuJoCo accompanying the plug-in.
- LEBSI** November 2021 - May 2022
- Developed an [app](#) that enables people to set up online clothing stores in minutes. Reached #22 on the AppStore top charts.
- Past Code** January 2021 - May 2022
- Developed an [app](#) that uses Apple's vision framework to help students find supporting papers with over 500,000 usages.

Please check [www.orayyan.com](http://www.orayyan.com) for a full list of my projects and experiences.

## EXTRACURRICULARS

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- Competitive Cubing (Rubik's Cube)** January 2017 - Present
- Set the official 4x4 **national record** (average and single) at an official WCA cubing competition
  - Competed in cubing events in Amman, Manama, New York, and Abu Dhabi
  - Led a Rubik's Cube speed-solving workshop at ZINC (Zain Innovation Campus)