

LARS PAULSEN, EIT

PaulsenLarsE@gmail.com | (209) 202-1732 | Lepaulsen.github.io

EDUCATION

University of California, San Diego

M.S. Mechanical Engineering

Sept 2024 - Present

Specializations: Adaptive Systems, Control

University of California, Irvine

B.S. Mechanical Engineering

Sept 2019 - June 2023

Specialization: Mechanical System Design

WORK EXPERIENCE

Research Engineer

Magnetic Microsystems & Microrobotics Lab

Oct 2023 - Oct 2024

UC Irvine

- Directed research team developing a novel device for magnetizing metal particles

Southern California Robotics Symposium Coordinator

Magnetic Microsystems & Microrobotics Lab

June 2023 - Sept 2023

UC Irvine

- Coordinated guest list, organized poster sessions, assisted guest speakers, and guided workshops

PROJECTS

ACE-F: A Cross Embodiment Foldable System

Jan 2025 - Nov 2025

- Modeled novel teleoperation device in Solidworks
- Created sensorless force feedback control system in Python and C++
- Designed Mujoco simulation environment using Python
- Trained imitation learning models in simulation and on real Panda and U-Factory robots

UC San Diego

[\[Website Link\]](#)

2D Magnetization Head

Oct 2023 - Present

UC Irvine

- Designed novel device for imprinting magnetic poles in particles suspended in 3D printed matrix
- Simulated magnetic fields and transient response in COMSOL
- Modeled 15+ structural and electrical components in Solidworks
- Preparing submission to IEEE Transactions on Mechatronics
- Sent GD&T compliant engineering drawings to outside manufacturers for custom parts

Humanoid Policy ~ Human Policy

Oct 2023 - Present

UC Irvine

- Designed and fabricated a 3 DOF camera gimbal for replacing an H1 robot head
- Collected human and humanoid training data for imitation learning models

PUBLICATIONS

[1] Rui Yan*, Jiajian Fu*, Shiqi Yang*, **Lars Paulsen***, Xuxin Cheng, Xiaolong Wang

ACE-F: A Cross Embodiment Foldable System with Force Feedback for Dexterous Teleoperation

Under review, 2025

[2] Ri-Zhao Qiu*, Shiqi Yang*, Xuxin Cheng*, Chaitanya Chawla*, Jialong Li, Tairan He, Ge Yan, David J. Yoon,

Ryan Hoque, **Lars Paulsen**, Ge Yang, Jian Zhang, Sha Yi, Guanya Shi, Xiaolong Wang

Humanoid Policy ~ Human Policy

arXiv preprint arXiv:2503.13441, 2025

TECHNICAL SKILLS

Solidworks (CSWA), GD&T, FEA (COMSOL, Patran), Python, C++, Matlab, PLC, Physics Simulators (Mujoco, Pybullet, CoppeliaSim), Allen Bradley PLC, 3D Printing, Low-voltage electronics, GitHub, Microsoft Office, Adobe, Autodesk Eagle

CERTIFICATIONS

Engineer-In-Training No. 180495, California, November 2023