

MILAD NOAH MESBAHI

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EDUCATION

University of Pennsylvania

M.S. Robotics

Philadelphia, PA

August 2024 - May 2026

University of California, Los Angeles

B.S. Mechanical Engineering

Los Angeles, CA

September 2020 - June 2024

WORK EXPERIENCE

Blue Origin

Guidance, Navigation, Control (GNC) Intern

Kent, WA

May 2025 - August 2025

- Contributing to control systems analysis and modeling within the Engines team.

UPenn - George Pappas GRASP Lab

Multi-Agent Reinforcement Learning Researcher

Philadelphia, PA

September 2024 - Present

- Developing MARL frameworks using deep learning, Gaussian active regression, and custom reward/NN architecture design for real-world problem. ICRA-25 submission in preparation.

NASA (Jet Propulsion Laboratory)

Mechanical Engineering Intern

Pasadena, CA

June 2023 - September 2023

- Led research project in vibration and shock mitigation in aerospace with novel damping material.
- Performed various vibrational tests coupled with FEM simulations, including modal analysis and MatLab post-signal processing, presenting promising findings to JPL's dynamics department.

Me and You Always - UCLA Social Network

Co-Founder

Los Angeles, CA

May 2022 - August 2024

- Self-taught web development, UI/UX, and marketing. Grew the user base to 4,000+ students.

SKILLS

Engineering Programming:	Python, Matlab, C++, Git, Web Dev (JavaScript, CSS, HTML)
Robotics:	Machine/Deep Learning, Optimization, Controls, Computer Vision
Platforms & Libraries:	ROS, Gazebo, PyTorch, Simulink, Solidworks/NX, CVXPY, BoTorch
Engineering Design & Manufacturing:	Signal Processing, CAD (FEA/FEM), 3D Printing, Milling/Lathing

TECHNICAL PROJECTS

Autonomous VIO Quadrotor

Designed a GPS-free autonomous quadrotor with onboard planning, control, and vision-based state estimation for robust real-time navigation.

Capstone Autonomous Rover

Mechanical design lead and programming co-lead for an autonomous rover with computer vision.

BOWL (Bayesian Optimization for Wide Landscapes)

Designed and implemented a custom BayesOpt algorithm to more reliably find robust solutions in expensive black-box problems by favoring wide, generalizable regions of the search space.

Robotic Battle Bot

Led the design and construction of a one-pound combat robot. Finished 2nd place in student competition.

Autonomous Pick-and-Place System

Built robotic arm pick-and-place algorithms capable of handling static & dynamic blocks.

RELEVANT COURSEWORK & ACTIVITIES

Undergraduate Engineering Foundational Courses

Statics & Structures, Dynamics of Rigid Bodies, Advanced Fluids, Materials Science & Manufacturing, Heat Transfer, Electronics/Circuits, Dynamical Systems Modeling, Feedback & Controls, Engineering Thermodynamics, Ethics, Compliant Mechanisms, Advanced C++, Engineering Management/Finance

Masters Courses

Machine Learning, Machine Perception, Introduction to Robotics, Advanced Robotics, Bayesian Optimization, Convex Optimization, Principles of Deep Learning (Fall), Elements of Probability Theory (Fall)

Activities

Former President of Sigma Chi, Book club founder, Fitness enthusiast, Writing, Economics + Philosophy