Saman Lotfizad

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EDUCATION

University of California, Irvine, Irvine, CA — Aug 2023 – Jun 2027
BS in Mechanical Engineering

WORK EXPERIENCE

Engineers for a Sustainable World (ESW), Beach Cleanup Rover Project — Oct 2025 – Present

Mechanical Subteam

- Collaborating on a 3D-printed, four-wheel-drive rover designed to collect beach litter and promote environmental sustainability.
- Designing the mechanical subsystem in SolidWorks, including treaded drivetrain, scooping mechanism, and sand-sifting vibration system.
- Integrating sensors and developing an AI-enabled camera system for future autonomous navigation.

Engineering Student Council (ESC), ***Corporate Affairs Member*** — Oct 2025 – Present

- Coordinated and executed professional development events (e.g., networking nights, speaker panels) connecting engineering students with industry professionals.
- Organized technical skill-building workshops and company engagement sessions that supported student career development.

Boca Pizzeria, *Server*, Corte Madera, CA — 2022 – 2024

- Managed and prioritized tasks for up to 15 tables simultaneously in a fast-paced, time-critical environment.
- Streamlined service by coordinating front-of-house and kitchen staff to boost efficiency and reduce errors.
- Resolved customer issues in real-time by quickly identifying problems and implementing effective solutions.

PROJECTS

Robotic Arm — Oct 2025 – Present

- Designing, 3D-printing, and assembling a custom Arduino-controlled robotic arm.
- Programming the arm for competitive tasks including max-weight lifts, cup-stacking, and automated bottle opening and pouring.
- Optimizing hardware and software in a team of 7 to enhance the arm's competitive performance.

CAD Design — Apr 2025 – Jun 2025

- Created a full 3D model of a Mazda Miata in SolidWorks, dedicating 30+ hours to perfect advanced surface modeling and assembly features.
- Conducted stress testing with finite element analysis (FEA) to evaluate structural performance under load.
- Developed animations and motion studies to illustrate component interactions and system functionality.

Walking Robot Project — Apr 2025 – Jun 2025

- Designed a walking robot in SolidWorks, creating detailed 3D models of all components.
- Fabricated custom parts by 3D printing plastic components and laser-cutting wooden elements.
- Assembled and tested the robot, achieving successful walking motion through mechanical integration.

SKILLS

- **Software & Programming:** Python, Matlab, SolidWorks, Arduino (C++), RStudio, Excel
- **Analysis:** Finite Element Analysis (FEA)
- **Fabrication:** 3D Printing, Laser Cutting