Marshall Saltz

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EDUCATION

Honors Bachelor of Electrical and Computer Engineering   Sep. 2021 - Jun. 2025
Oregon State University, Corvallis, OR   GPA: 3.31

TECHNICAL EXPERIENCE

Student Researcher – Robotics Lab
Oregon State University, Corvallis, OR   Jan. 2022 - Present

- Collaborated with two graduate robotics students to build an evolutionary algorithm finding measurements for a two-fingered gripper with optimal reachability by testing over 200,000 grippers, expanding searchable workspace
- Verified results in PyBullet simulation using Python and inverse kinematics to be published in undergraduate thesis paper, improving on previous research completed
- Developed effective technical documentation and analyzed results for honors thesis in an R&D environment, ensuring effective transfer of information for future project

Intern – Artificial Intelligence in Agriculture   Jun. 2023 - Aug. 2023
AgAID, Corvallis, OR

- Developed Python algorithm to construct accurate 3D tree models from RGB and depth sensor data, applying computer vision techniques, enabling robotic arm simulation for autonomous pruning
- Delivered a final presentation of research outcomes to a panel of industry leaders and academic professionals, received positive feedback
- Contributed to AI-driven agricultural solutions for testing a robotic system in simulation by contributing to a collaborative codebase, improving simulation performance

Student Technician – Service Desk
Oregon State University, Corvallis, OR   Nov. 2021 - Present

- Assisted the community of over 40,000 students' and employees' technical issues both virtually and in-person, resolving over 90% of problems on first contact
- Provided excellent customer service by utilizing strong phone etiquette and conflict resolution strategies, keeping interactions positive
- Diagnosed and resolved hardware and software issues on MacOS and Windows machines, ensuring minimal downtime for users

LEADERSHIP EXPERIENCE

Engineering Student Council EECS Senator   Mar. 2022 - May 2023
Oregon State University, Corvallis, OR

- Connected students with club and academic resources by organizing events, improving accessibility
- Advocated for EECS student population by communicating feedback to administration

Computer Science Club President   Aug. 2020 - May 2021
Front Range Community College, Fort Collins, CO

- Organized club events such as industry presentations, fundraisers, and a hackathon attended by over 30 students, enhancing club visibility and drawing new members
- Monitored and maintained engagement levels despite virtual isolation

SKILLS

- **Electrical:** Schematics, Soldering, KiCAD, Flexible Electronics, VLSI, FPGA, PCB Design, Electrical product design and development, Digital design, Electrical lab equipment and debugging
- **Mechanical:** Fusion360, Power tools, Prototype assembly, Hand tools, 3D printing, AutoCAD
- **Software:** Python, C++, C, Linux, Simulations, Computer vision, Electromechanical controls, ROS2, OpenCV, Pybullet, MATLAB, AVR Assembly Language, Microcontroller programming
- **Soft:** Presentation, Public speaking, Interpersonal, Collaboration and teamwork, Phone etiquette, Conflict resolution, Technical documentation, Leadership, Customer service, Problem solving, Multi-discipline engineering teams