# Rei (Wen-Ying) Lee

⊠ wl593@cornell.edu	ttps://www.rei-lee.com
🖾 +1 (315) 728 - 9579	https://scholar.google.com/citations?user=mtA-IAAAAJ

# **EDUCATION**

### **PROFESSIONAL EXPERIENCE**

#### Lead Creative Technologist, Malamute Inc.

- Collaborating with cross-functional teams to conceptualize, develop, and implement innovative and creative technological solutions.
- Leading the ideation and execution of interactive digital projects, ensuring they are on-brand and meet user experience standards.

#### Consultant for Test and Reliability, Aescape Inc.

- Designing, building, and operating systems to perform functional testing to perform in-house hardware validation and to determine product's operating conditions.
- Coordinating with internal and third-party testing facilities to get reliability tests scheduled and executed according to product timeline.

#### Mechatronics and Robotics Scientist, Exponent

- Ensured commercial products meet the ISO standards in performance and safety through inspection on various lithium-ion battery packs examination, testing, and tearing-down.
- Managed a group of research assistants to conduct large-scale (N >= 1000) global data collection and analysis and gain user insights and improve the stability and performance of commercial products and services.

Mechatronics R&D Intern, Universal Creative | Advanced Technology Interactives/R&D

- Collaborated with interdisciplinary teams to develop creative concepts for attractions in Universal Studio Parks.
- Built mock-ups and prototypes and conducted play-testing for the interactive systems.
- Research Scientist, Cornell University | Robots in Group Lab
- Led and managed the research project, *Character-Driven Robot Design*, to develop and build several functional robotic platforms and control algorithms for research studies. The research furthered our understanding of robots' social role in the future and has resulted in several paper publications.
- Mentored a team of undergraduate researchers to develop research scopes and objectives on personalized interaction with a robotic toaster. The research enabled the future integration of robotics technology under domestic environment, which has resulted in two paper publications.

# **OTHER ACCOMPLISHMENTS**

- **Unity Testing Platform**: Applied Unity and WebGL to implement virtual iterative design platform for robot-movements. <u>https://rei-lee.com/IVxUnity/</u>
- **Mechatronic Platform for Course**: created and developed a robotic platform that was adopted as main class material. <u>https://github.com/FAR-Lab/Mobile\_HRI\_Lab\_Hub/blob/main/Lab1/Readme.md</u>

**Open-Source Servo Library**: developed the open-sourced servo motor library for microcontrollers. <u>https://github.com/rei039474/Dynamixel XL330 Servo Library</u>

# **PROFESSIONAL SKILLS**

CAD Tool: SolidWorks, AutoCAD, Autodesk 360, Rhino, Creo

Software: HTML, CSS, C#(Unity), C/C++, Java, Python, JavaScript, ROS, Git, GitHub, Figma

Hardware: CNC equipment, 3D printers, laser cutters, machine tools, hand tools, CT Scans

Aug. 2017 – May 2023

Aug. 2013 – Jul. 2017

Oct. 2023 – present

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Nov. 2023 - present

Feb. 2023 – Aug. 2023

Aug. 2017 – May 2023

Summer 2019