

Liam J. Fay

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Education

A versatile, innovative Stanford junior and mechanical engineering student with an interest in experiential design, mechanical design, product design, and cross-disciplinary design with skills that bridge engineering and theater. Superb leadership and communication skills, able to deliver high-quality results, and successfully manage numerous complex projects simultaneously.

Stanford University / B.S., School of Engineering

Class of 2023, 3.6 GPA, Stanford, CA

Currently studying Mechanical Engineering and Product Design at Stanford's d.school with a special interest in experiential and theatrical design. Completed coursework in engineering fundamentals as well as a broad range of construction and fabrication techniques.

Skills/Coursework

Software: SolidWorks (CSWA certified), Python, Java, Matlab, Adobe Illustrator, Adobe InDesign, Adobe Premiere, Adobe Photoshop

Skills and Proficiencies: Manual mill, laser cutting, 3D printing, welding, carpentry tools, sewing, rapid prototyping, finite element analysis.

Strengths: Technical Writing, Project Management, Presentation, Skills, Iterative Design, Interpersonal Communication, Graphic Design.

Coursework: Human Values in Design, Product Realization, Calculus, Introductory Electronics, Engineering Physics, Design Sketching, Solid Mechanics, Statistics, Mechanics of Materials.

Experience

Stanford IRIS Lab / Engineering Research Intern

June 2021 - August 2021, Stanford, CA

Developed documentation, generated drawings and refined design of a large-scale moving art installation as part of Professor Erin MacDonald's IRIS Lab. Additionally, under the guidance of Professor MacDonald, conducted an independent study on human perceptions of strength and safety compared to the evaluation of structures through finite element analyses.

GEM Safety / Lead Hardware Engineer

August 2020 - June 2021, Stanford, CA

Designed and prototyped wearable bluetooth technology for Mozilla "Fix the Internet" Incubator start-up using SOLIDWORKS CAD software.

Stanford Edmark Lab / Design Research Assistant

May 2020 - September 2020, Stanford, CA

Assisted Stanford d.school Professor John Edmark in exploring geometry of 3D shapes using SOLIDWORKS CAD and laser cutting.

dFab at University of Washington / Technical Documentation Assistant

April 2020 - May 2020, San Diego, CA

Remotely assisted in the documentation of PPE development at the University of Washington dFab laboratory during the pandemic lockdown.

House of Hints Escape Room / Design Intern

June 2019 - August 2019, Stanford, CA

Developed games, designs and storylines for Backstage at the Theater, an immersive escape room experience.

Leadership

Ram's Head Theatrical Society / Technical Leadership

September 2019 - November 2021 - present, Stanford, CA

Served various technical leadership roles in Stanford's largest theatre organization, including:

- Master Carpenter for 2019's "Gaieties 2019", responsible for translating set design concepts into functional and safe wood structures. Led a team of 100+ cast and company members
- Technical Director for 2020's "Pippin", specializing in welding and CAD. Led a team of 80+ cast and company members.
- Set Designer for 2020's "Gaieties 2020", specializing in adapting traditional set design to the online Zoom experience.
- Technical Advisor for 2021's "Gaieties 2021", providing mentorship to an entirely novice technical and construction team.

Stanford University Residential Education / Resident Assistant

January 2021 - present, Stanford, CA

As an RA, managed funds, organized events, and coordinated wellness activities for a dorm of over 200 first year Stanford Students.

Stanford University Admissions Office / Admit Weekend Coordinator

January 2019 - May 2019, Stanford, CA

Assembled a team of over 100 Housing Hosts and scripted and hosted the ProFro PickUp event for nearly 2000 prospective freshmen.

Organizational Memberships

Society for Experiential Graphic Design / Student member

Themed Entertainment Association / Student member

Stanford Ram's Head Theatrical Society / 2019-2020 Service Award recipient