

Khuyen Thi Nguyen

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EDUCATION

Stanford University

Palo Alto, CA

Bachelor of Science in Product Design - Mechanical Engineering

2021-2025

- Stanford Solar Power Car Project, Stanford Women in Design, Vietnamese Student Association

WORK EXPERIENCE

Olyns

Santa Clara, CA

Hardware Intern

June 2023 - Current

- Designed sheet metal assemblies in Solidworks to decrease field failure rates and increase machine's capacity through geometric optimization. Developed an array of prototypes to iterate and test for design in CAD
- Generated detailed engineering drawings and implemented design in manufacturing ECN for production
- Managed experimental test plans, validated testing methods, and drove corrective actions through failure analysis
- Conducted root-cause analysis of PLC failures through mechanical damage, calibration, and electrical checks
- Managed BOM and SolidWorks assembly to ensure all materials sourced are compatible with company's standard

Lathrop Library Technology Services

Stanford, CA

UX Designer/ Project Manager

January 2023 - Current

- Facilitated UX process for increasing utility and engagement of learning spaces to boost students' productivity
- Mobilized 50+ interviews, surveys, and pitched presentations to secure approval and funding from stakeholders
- Conducted qualitative and quantitative research to define user needs, create user personas, and drive solution flow
- Used UX data to create visual prototypes for interior design solutions using low and high-fidelity prototypes

DeSimone Lab

Palo Alto, CA

Researcher

June 2022 - Jan 2023

- Designed dielectric geometry with AutoCAD, Rhino, and Carbon for elastomer manufacturing (through Digital Light Processing technology). Optimized dielectric geometry to increase sensitivity for haptic sensor applications.
- Developed fixture test unit with Arduino and FSR sensor for X-ray chamber. Fixture test unit enabled controlled compression of electrodes to analyze deformation under varying forces for CT scan characterizations
- Projected capacitance and mechanical performance of interdigitated electrodes by developing mathematical models in Matlab and Abaqus (with Periodic Boundary Condition). Used the developed models to predict mechanical characteristics of electrode design that would yield the highest sensitivity range for production

RELEVANT PROJECTS

Physical Design: Designing & Manufacturing a Lamp

Spring 2023

- 3D-modeled and manufactured a multi-system lamp using sheet metal forming, casting, machining, and welding
- Integrated multi-system assembly to be compatible with commercial fasteners and lighting fixtures, and lightbulbs
- Structured documentation of BOMs, order of manufactured operations, assembly instructions, and project reports

Digital Design: Nova

Winter 2023

- Designed UI interfaces for a comprehensive health app in Figma. Created and usability tested app wireframes
- Collaborated on design process from user research, app conceptualization, to product development

SKILLS

- Hardware:** Sheet metal, mill, lathe, casting
- Software:** CAD (Solidworks, Fusion), FEA (Abaqus, Ansys), Python, Matlab, Arduino IDE
- Prototyping:** Laser Cutting, 3D printing
- Design:** Figma, Adobe Premiere, Adobe Lightroom, Microsoft Office (Excel, Powerpoint, Outlook)

PUBLICATION AND CONFERENCES

- "Single-digit micron 3D Continuous Liquid Interface Production (CLIP) for wearable electronics" - Gordon Research Conference, 2022 (Co-author)