Anna Lai

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EDUCATION

Stanford University B.S. + M.S. Mechanical Engineering
Sep 2014 - Jun 2019 / GPA: 3.8
Courses: Design & Manufacturing, Energy Systems, Product Realization, Data Mining, Computer Vision, Dynamics & Controls, Solid & Fluid Mechanics, Heat Transfer, Linear Algebra, Intro to Chemical & Electrical Eng., Optimization, Programing Abstractions

Pratt Institute Architecture Intensive
Jul 2012 - Aug 2012

EXPERIENCE

Natron Energy Battery Engineering Intern, Mechanical Design Engineer
Jun 2018 - Jun 2019, Sept 2019 - Present / Santa Clara, CA
Designed assembly fixtures, developed battery cell and module form factors, and simulated battery performance using ANSYS electrochemical models and test data. Rapidly prototyped quality check devices to streamline cell manufacturing.

Chevron Upstream Capability Intern
Jun - Sept 2019 / Houston, TX
Set KPIs for contractor performance evaluation across global business units. Text mined natural language data and created live dashboards to improve operational efficiency.

Schlumberger Mechanical Engineering Intern
Jun - Sep 2017 / Rosharon, TX
Conceptualized a redundant hydraulic activation system for Sand Control Tools and Inflow Control Devices. Conducted risk/benefit analysis, FMEA, and modeled designs in Creo.

ISEP Research Intern
Apr - Jun 2017 / Paris, France
Developed UX designs for a robotic device aiding secondary education in STEM compatible with the BBC micro:bit. Conducted meetings in French with ISEP advisors.

Prakash Lab Undergraduate Researcher
Jun 2015 - Apr 2017 / Stanford, CA
Fabricated macro-scale droplet deposition devices to investigate lattice systems of vapor-mediated interactions between droplets. Developed micro-fluidic devices, motorized optical setups using Arduinos, and image processing software to track droplet movement.

PROJECTS

S3: Designed and built a storage stool with rotating sheet metal formed drawers with custom bushings and welded frame in the Stanford Product Realization Lab.

Nebulate: Worked with an interdisciplinary team to experiment with the limits of sheet plastic and design, prototype, and construct a full installation at Stanford's Anderson Collection.

Alternative Energy Systems: Designed and built a thermal management system for an RC car powered by 3-cell $LiFePO_4$ battery pack.

Yog.ai: Developed an application with deep learning approach to enhancing yoga forms by classifying poses using OpenPose keypoint detection and CNNs.

FILLanthropy: Designed bilingual web application for organizing volunteering events to drive civic engagement, Design Challenge Finalist at the Stanford Center on Longevity.

SKILLS

CAD: Solidworks, PTC Creo, AutoCAD, ANSYS, CAM
Design: Illustrator, Photoshop, Painting, Machining, Welding, Casting, Sheet Metal, CNC
Programming: MATLAB, C++, HTML/CSS, Java, Julia, Python, R, SQL
Languages: Mandarin, French