Rebecca Lin

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EDUCATION

Bachelor of Science, Mechanical Engineering — Design Strategies Certificate
The University of Texas at Austin — May 2022
Relevant Coursework: Materials/Materials Lab, Intro to Artificial Intelligence Design, Storytelling for Influence, Intro to Computer Science, Mechatronics, Machine Elements, Performance for Robotics, Vector Calculus

WORK EXPERIENCE

Team Captain | NASA JPL & HeroX "Honey, I Shrunk the Payload" Challenge — Summer 2020 — Present
- Earned 3rd place out of 180 teams within a two month timeline by mobilizing team members with a strict Gantt Chart
- Developed a payload within the limitations of a human palm to analyze elements within regolith essential to human life
- Conserved total costs to below $1500 by analyzing a bill of materials based on a CAD model and a finite element analysis
- Integrated 4 different subsystems with electrical, mechanical, and chemical engineering components to the Artemis Rover

Electromechanical Technician | Electric Avenue Scooters — Summer 2020 — Present
- Assemble electric vehicles and applied class knowledge to repairs and personalized adjustments per client's request
- Multitasked both front-end and back-end of shop, interfacing with customers and working on their products as needed
- Learned new systems of diagnostics for both the electric portion of the bike and analyzing the body of the bike for repairs
- Designed a tool to help decrease the amount of time that one would have to spend adjusting the tedious brake system

Summer Engineering Technician III | Design Division | Texas Dept. of Transportation — Summer 2019
- Utilized 2D and 3D programs such as Microstation, OpenRoads, and SignCAD to design roads and mark in schematics
- Constructed data sheets for earthwork, drainage calculations, and bridge dimensions for projects worth up to $150 million
- Modified work plans and travelled around Texas to see through construction and gain understanding of optimal strategies
- Applied various courses on highway construction and standards to analyze final plans before letting

Undergraduate Pharmacy Research Assistant | Smyth Lab | The University of Texas — Spring 2019 — Present
- Conduct Dynamic Light Scattering Particle Size Analyses (DLS) and write procedures for usage
- Initiate research to redesign aerosol containers for greater efficiency of dry powder materials
- Transcribe experimental procedures and sourcing the reason for the steps to write into research plan
- Refine 3D program models using Solidworks to new specifications and needs to optimize a product using control variables

Undergraduate Energy Research Assistant | First-Year Research Program | The University of Texas — Fall 2018
- Evaluated research on the effects of nanoparticles in water and the devices already created for water purification for rural areas
- Created a procedure for testing a device to purify water more efficiently while containing it for human consumption
- Won 2nd place overall and constructed multiple interactions of a functioning prototype with limited budget, resources

LEADERSHIP EXPERIENCE

Corporate Liaison | American Society of Mechanical Engineers (ASME) — Spring 2020 — Present
- Inspired members to continue job search despite COVID-19 by moving organization to online platform and creating content
- Expedited expected events to maintain regular schedule of corporate supporters motivating students to discover their careers

Concept Lead | Design Team | American Society of Mechanical Engineers (ASME) — Spring 2019 — Spring 2020
- Competed in a trebuchet-building competition in Colorado, applying principles of Solid Mechanics & Materials Engineering
- Lead multiple teams with fast paced decision making across diverse topics to give students out-of-classroom experiences
- Designed and build a pair of motorized roller skates after applying for a competitive grant of $750 with a proposal
- Developed a national-level Rube Goldberg-type collegiate competition to challenge other universities' technical skills

Vice President | Women in Mechanical Engineering (WME) — Spring 2020 — Present
- Introduced new methods of engaging with members by preparing virtual content that would encourage previous events
- Constructed data sheets for earthwork, drainage calculations, and bridge dimensions for projects worth up to $150 million

SKILLS

- **Languages:** Chinese Fluency, Spanish Basic Conversation
- **Software & Programming:** Solidworks, Microstation, SignCAD, OpenRoads, MATLAB, Fiji, Photoshop, Office Suite, iWork Suite, Google Suite, Java, Python, HTML, CSS, ANSYS, JavaScript,
- **Certifications:** First Aid (2018), Machine Shop, Laser Training, 3D Printing, Woodworking