

MAX SONG

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EDUCATION

The University of Texas at Austin	Mechanical Engineering <i>Design and Manufacturing Track</i> Overall GPA: 3.85/4.0 Relevant Coursework: Statics, Thermodynamics, Solids, Dynamics, Engineering Computational Methods	May 2027
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WORK EXPERIENCE

Texas Inventionworks Makerspace at the University of Texas at Austin – <i>Student Assistant</i> ; Austin, TX	August 2024 – Present
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- Trained 30+ students on safety and intuition behind manual mill, manual lathe, and SLA and FDM 3D printers
- Calibrated, maintained, and conducted regular diagnostics on 3+ machines while ensuring proper operational procedures
- Developed instructables and workshops as a Machine Shop Team Member to increase student participation rates

Department of Homeland Security Center of Excellence's Summer Experience in Quantitative Analytics – Intern	June 2024
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- Implemented researched solutions to Phoenix Sky-Harbor Airport's customs sim which increased operational efficiency by 10+%
- Proposed airport data integration API which projected 20+% in made-flights, securing first place in program-wide competition
- Completed curriculum covering softwares like Arena, Python and topics like ML, AI, operational efficiency from industry experts

Song Leather – <i>Founder</i> ; Houston, TX	December 2020 – Present
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- Designed and modeled unique wallet template patterns, tools, and products utilizing Adobe Illustrator and Fusion 360
- Launched and scaled an eCommerce platform on Etsy by conducted market research and competitor analysis
- Achieved 3+ million views, 500+ thousand likes, 10+ thousands Tiktok followers and 30+ sales during first fiscal year

ACTIVITIES

Texas Rocket Engineering Lab ; Austin, TX	Fall 2024 – Present
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Mark 1 – Composites Manufacturing Engineer

- Modeled 4ft nose cone mold in Solidworks for carbon fiber composite layups process while considering vacuum effects
- Designed and created access ports and fiberglass raceway mounts on rocket skirts to aid in fluids integration
- Laid up rocket skirts, couplers, raceway mounts utilizing resin infusion and prepreg composites to pass 9600 lbf structural test

Orbital Test Stands – Structures Engineer

- Led modeling of 30+ ft chamber for test stand infrastructure housing for ease of integration and PDR DCR presentations
- Developed bolt optimization calculator using parameters like concrete's compressive strength, achieving 190% support
- Researched and modeled pressure transducer brackets for fluids while accounting for excessive vibration from engine testing

Project PL-8 – Shell Team Engineer	Fall 2024
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- Modeled vehicle shell panels using Blender for vehicle housing while considering basalt fiber composite manufacturing constraints
- Developed chassis structure integration with shell panels while collaborating with powertrain and electronics for integration

University of Texas Men's Club Volleyball – <i>Outside Hitter & Setter</i>	Fall 2023 – Present
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- Implemented comprehensive attendance report substantially improving team attendance, increasing overall player accountability
- Strategically orchestrated team plays as a setter, enhancing team chemistry leading to a number 2 ranking in regional tournaments

SKILLS

Manufacturing: CNC Mill, Manual Mill, Manual Lathe, Laser Cutters, SLA and FDM Printers, Electronics and Soldering

Software: CAD (Solidworks, Fusion360, Blender), CAM(Fusion 360), MATLAB, Python, Adobe Illustrator, Arena, Tableau, MS Office

ADDITIONAL INFORMATION

Projects: 4x8 Macropad, 1lb Antweight BattleBot, Spotify API RFID Turntable, Lightbox

Interests: Volleyball, Woodworking, Leatherworking, Poker, 3D printing

Languages: Working Proficient in Chinese

Work Eligibility: Eligible to work in the U.S. with no restrictions