

Mira Chew

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Education

BS Olin College of Engineering , 3.72 GPA, Mechanical Engineering <u>Aluminium Welded Load-Bearing Furniture Project</u> <ul style="list-style-type: none">Designed & fabricated custom multifunctional furniture w/ SOLIDWORKS, TIG welded aluminium, & wood integration <u>Laser Wizard Tag Project</u> <ul style="list-style-type: none">Circuit design w/ ESP8266 microcontroller utilizing parallel IR sensor & emitter configurationsDeveloped MVC architecture in Arduino w/ Wi-Fi communication of microcontrollers & website	Sep 2022 – Dec 2026
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Experience

Farm-ng , Hardware & Mechanical Engineering Co-op <i>Designed, manufactured, & produced system assemblies and parts for autonomous tractors using SOLIDWORKS, Fusion 360, sheet metal, welding, laser cutting, bending, CNC machining, & powder coating</i> <u>Suspension Project (Jun 2025 - Jul 2025)</u> <ul style="list-style-type: none">Developed hydraulically interconnected tractor suspension w/ sheet metal, CNC mill, SOLIDWORKS Johnson & Johnson Surgical Robotics R&D Medtech , Mechanical Engineering Co-op <i>Designed & materialized mechanisms, custom sensors, actuators, & gearboxes for medical device capital equipment applications using SOLIDWORKS, 3D printing, Technical Drawings, & GD&T</i> <u>Custom Gearbox Project (Oct 2024 - Present)</u> <ul style="list-style-type: none">Designed custom gears & mechanisms for surgical robotic instruments w/ GearTeq & SOLIDWORKSTight packaging of various rotary (spur, helical, bevel, pulley) & linear (spur, rack, pulley) gears <u>Precisions Assembly Fixturing Project (Jun 2024 - Jul 2024)</u> <ul style="list-style-type: none">Developed precise fixtures w/ GD&T to assemble custom torque sensing design applicationsImplemented fixture workflow to reduce hand assembly time & increase repeatability/precisionDesigned fatigue tests via custom pneumatic systems to precisely analyze mechanical failure <u>Mechanical Component Integration Project (Sep 2024 - Oct 2024)</u> <ul style="list-style-type: none">Designed multifunctional aseptic mesh of capital equipment & instruments in SOLIDWORKSRefined machining (mill, injection mold, print) & attachment (heat stake, latch, fuse) methods Olin Baja Society of Automotive Engineers , Senior Engineer, Design & Fabrication Lead <i>Led & advised design reviews and fabrication/machining/assembly of car elements. Focused on systematic integration of suspension/drivetrain/chassis, DFM, and DFA</i> <u>Chassis Project (Jan 2022 - May 2022)</u> <ul style="list-style-type: none">Design & MIG weld frame elements in SOLIDWORKS & FEA to optimize driver safety/performance FIRST Robotics Team Voltage , Team Founder, Software & Hardware Team Lead <i>Led team in design & development of full robotics system of mechanical, electrical & software components</i> <ul style="list-style-type: none">Designed multifunctioning robot w/ various sensors (IR, limit switch, RGB sensor, camera) and mechanisms (linear slides, pulleys, mecanum wheels, gearing) using PTC Creo and prototypingRefactored Java codebase utilizing OOP, implementing modular subsystems, organized in Github REI Co-op , Bike & Snow Repair Shop Technician <i>Diagnosed & repaired bike issues and taught customers/employees mechanic skills</i> AppEsteem Corporation , Software Development Intern <i>Developed front and back end of data visualization widgets using React JS and REST API</i> UW Machine Learning and Robotics Lab , Summer Robotics Intern <i>Optimizing robot arm optical tracking & tuned machine learning performance</i> <ul style="list-style-type: none">Designed & iterated 3D parts for robot machine learning optical sensing using FreeCAD	May 2025 – Aug 2025 Watsonville, CA May 2024 – Dec 2024 Santa Clara, CA Sep 2022 – Dec 2024 Needham, MA Aug 2017 - Mar 2022 Bellevue, WA Mar 2022 - May 2024 Bellevue, WA Sep 2021 – May 2022 Bellevue, WA Summer 2021 & 2022 Seattle, WA
Olin Office of Strategic Communications , Student Gov. Rep., Photographer Olin Soccer, Olin Handball, & Olin Bike Club , President, Team Captain, Budget Manager	Sep 2023 - May 2024 May 2023 - Present