

Jordan Lin

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TECHNICAL SKILLS

Software & CAD: SolidWorks, SolidWorks Simulation, AutoCAD, Google Workspace, Microsoft 365

Manufacturing & Prototyping: FDM 3D Printing, Lathe, Manual Mill, Band Saw, Laser Cutting, Hand Tools

Engineering: Design for Manufacturing & Assembly (DFMA), Rapid Prototyping, Worst Case & RSS Analysis, Static FEA, Design Iteration

Languages: English (fluent), Mandarin (fluent)

ENGINEERING EXPERIENCE

University of Waterloo Formula Electric – Chassis Subteam Member

SEP. 2026 - PRESENT

Mechanical Design, Additive Manufacturing, Prototype Testing, Assembly

- Designed a shaft collar in SolidWorks to axially restrain seatbelts wrapped around the chassis seatbelt tube, then FDM printed the prototype and performed physical fit checks to verify placement and prevent side to side movement
- Identified a chassis fitment issue while replacing spacers, measured dimensional variation with callipers, then reported unmet tolerances
- Machined a spacer on a lathe using facing, turning, chamfering, and drilling

University of Waterloo Concrete Toboggan Team – Brake Design Core Member

SEP. 2026 - PRESENT

Mechanism Design, CAD, Design Review, Design for Manufacturability

- Designed and modelled a V1 brake retraction system in SolidWorks using a hand wheel crank and pulley path to pull the deployed brake back toward the automatic latch after each run, resolving the ongoing issue of manually pulling up the brake
- Evaluated the V1 mechanism during design review and identified poor force transfer from crank/pull misalignment, then used design review findings on cost and manufacturability to redesign the system around a simpler V2 spring return mechanism
- Developed a V2 layout and CAD that redirects the pull path to better align the applied force with the brake's reset motion, improving force transfer while reducing packaging and manufacturing complexity by choosing a spring loaded return mechanism
- Performed preliminary static FEA in SolidWorks Simulation on the 6061-T6 handle and line guard under the 102.8N design load, predicting 2.69MPa max von Mises stress and 0.0023mm max displacement, confirming a factor of safety of ~100 and room for material reduction

PROJECTS

3D Printed Racecar – SolidWorks, FDM 3D Printing

2026

Mechanical Design, Steering Mechanism, Prototyping, Assembly

- Designed, FDM printed, and assembled a multi-part V1 racecar in SolidWorks with a rack and pinion steering mechanism, using the physical prototype to verify component fit, steering motion, clearances, and overall assembly
- Collaborated in a team of three to develop a V2 CAD redesign with revised steering geometry, a mechanical braking concept, and dedicated packaging for remote control electronics, using observations from the V1 build to improve integration and mechanical layout

Mechanical Gripper – SolidWorks, SolidWorks Simulation

2026

Mechanical Design, Assembly, FEA, Motion Testing

- Designed a V1 multi link gripper in SolidWorks using a slider linkage to convert linear input motion into synchronized jaw motion
- Redesigned to a snack gripper, expanding jaw range from 44mm max in V1 to 10.0mm–59.9mm in V2 while adding FDM clearances
- Calculated 4.30mm slider travel, 9.41° trigger rotation, and 13.7N grip force per jaw under a 50N squeeze, verifying motion in SolidWorks
- Performed PLA static FEA on jaw and trigger, predicting maximum stresses of 17.3MPa and 29.7MPa with factors of safety of 2.9 and 1.7
- FDM printed, assembled, and function tested the prototype, verifying motion and jaw opening through repeated actuation

Mechanical Enclosure for Arduino Based Metronome – SolidWorks, AutoCAD

2026

Mechanical Design, CAD, Assembly Validation

- Established PCB reference geometry by measuring board dimensions and feature locations with a calliper, then designed a hinged front access frame that secures the electronics while allowing the assembly to swing open, maintaining serviceability

EXPERIENCE & LEADERSHIP

Co-Manager, Rental Property (Airbnb)

NOV. 2022 - PRESENT

- Maintained profitability and a 4.9+ host rating across 100+ bookings by managing pricing, scheduling, budgeting, and property maintenance
- Coordinated guest needs, maintenance issues, and daily operations, developing strong ownership, communication, and problem-solving skills

Trainer, Future Business Leaders of America (FBLA)

SEP. 2024 - JUN. 2026

- Prepared members for national competitions by leading public speaking and business training to target identified weaknesses

Home Staging Assistant, R&R Staging (Part Time/Seasonal)

JUL. 2024 - JUL. 2025

- Supported house and apartment staging by transporting furniture and decor and arranging furnishings to improve property presentation
- Bridged language barriers with clients and property owners by communicating in English and Mandarin during on site staging work

Teaching Assistant Co-op, Bayview Hill Elementary School

FEB. 2025 - JUN. 2025

- Delivered lessons and led a house design project for 30 students by guiding development, edits, and presentations with structured feedback

EDUCATION

University of Waterloo, Canada

SEP. 2026 - JUN. 2031

Bachelor of Applied Science, Mechanical Engineering

Relevant Courses: Introduction to Mechanical Engineering Practice 1, Linear Algebra, Calculus 1, Mechanics