Amit Weis

Mechatronics Engineering Student

Contact

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Technical Skills

- SolidWorks
- Unity
- C, Python, and WebDev
- Unix command line
- Machining

General Skills

- Leadership
- Team Management
- Sponsorship Acquisition
- Design
- Public Speaking

Education

University of Waterloo

Candidate for Bachelor of Applied Science in Mechatronics Engineering

Graduation expected April 2030

Experience

Junior Software Developer at Packet39

Jan 2023 - Now

- Developed and optimized Unity Scenes and Materials.
- Annotated data for a custom augmented reality engine that combined machine learning and computer vision for the Rod Laver Tennis Arena in Melbourne, Australia
- Optimized Materials for a augmented reality exposure therapy app for PTSD patients at the Wayne State University hospital that won the "XR Healthcare Solution of the Year" at the AIXR EuropeXR Awards 2025.

Co-Lead at MechMania

May 2024 - May 2025

- Managed a team of over ten people and oversaw several parts of the event planning process including website design and development, logistical organization and sponsor communications.
- Ran a free-of-charge robotics competition at the University of Waterloo's PSE (formerly E7) with over 120 competing students and established a returning event now entering its third consecutive year.
- Raised several thousands of dollars via sponsor outreach

Design Director at SproutHacks

Jan 2024 - Feb 2025

- Presented during the event at the Conestoga College's Waterloo Campus to over 100 competing participants.
- Designed and maintained the event website and branded merchandise.
- Managed social media strategy and coordinating recruitment efforts to drive participation and growth.

Projects

Bttrpie

- Designed and built mini-pool table with an automatic and autonomous ball sorting system using a 3-axis gantry and a grabber claw.
- Implemented embedded control software to coordinate gantry motion, object detection, and grasping sequences.
- Designed all mechanical components in SolidWorks and validated the physical design through SolidWorks motion and structural simulations.

ARmatica

- Built an augmented reality hardware prototyping assistant that overlays 3D circuit schematics onto physical breadboards using an 11-gram tracking module.
- Developed a Flask backend to automatically convert 2D electrical schematics into 3D spatial models and a web application for schematic uploads.