Amit Weis

Mechatronics Engineering Student

amitweis.com amitweisgor@gmail.com linkedin.com/in/amitweis

Education

University of Waterloo **3.95 GPA**
Candidate for Bachelor of Applied Science in Mechatronics Engineering
Graduation expected April 2030

Summary Of Skills

Technical Skills: SolidWorks, Unity, C++, C#, Python, WebDev, Unix command line, Machining
General Skills: Leadership, Team Management, Sponsorship Acquisition, Design, Public Speaking

Experience

Junior Software Developer at **Packet39** **Jan 2023 - Present**

- 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 an 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

see website portfolio for more info on projects

Bttrpie **Nov 2025**

- Designed and built a mini-pool table with an automatic and autonomous ball sorting system using a 3-axis gantry and a grabber claw.
- Implemented PID motion control for a 3-axis rack-and-pinion gantry that has accurate blind positioning
- Designed all mechanical components in SolidWorks and validated the physical design through SolidWorks motion and structural simulations.

ARmatica **May 2025**

- 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.

3D-Snake **Jan 2025**

- Designed and implemented a physical 3D Snake game on a 5×5×5 LED matrix cube using Arduino Mega, enabling six-degree-of-freedom gameplay within strict embedded memory constraints (4KB RAM).
- Engineered a multiplexed LED addressing and control system to simulate a real-time volumetric display.