

# Reuben Lavin

Incoming UBC Science student (Sept 2026), planning the transfer into Engineering. Robotics, embedded systems, and software.

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## Education

- University of British Columbia · Vancouver, BCSept 2026 (incoming)  
Bachelor of Science · Engineering transfer planned after first year
- West Point Grey Academy · Vancouver, BC2020–June 2026  
Grade 12 · 97% average · Honor Roll all years
  - AP coursework: Computer Science A · Calculus BC · Statistics · English Language · Human Geography

Selected Projectsfull portfolio: reubenlavin08.github.io/portfolio

- Assistive Navigation HelmetRobotics · Embedded  
Wearable that maps obstacles to directional haptic feedback. Dual VL53L8CX time-of-flight sensors on independent I<sup>2</sup>C buses and a BNO085 IMU at 100 Hz feed ESP32 firmware that converts an 8×8 depth grid into a three-motor haptic array with a distance-weighted urgency curve; verified on hardware with live desktop and phone point-cloud visualizers.
- Spindle Whorl ARUnity · Meta Quest 3  
Mixed-reality preservation of a Coast Salish spindle whorl: photo-textured discs presented in a Unity 6 passthrough-AR gallery scene, built end to end and verified on Meta Quest hardware through a school device program.

## Experience & Leadership

- Head of Technical Maintenance · Windsor Market2021–2024  
On-call technician for a small commercial grocer
  - Repaired industrial refrigeration, HVAC, electrical circuitry, and structural systems; also ran till, stock, and back-office operations across three years
- Black Belt & Assistant Instructor · Ken Shin Dojo / Kerrisdale CC2025–present  
Youngest black belt and assistant instructor in the dojo's history · kickboxing since 2021
  - Lead 20+ students across three weekly kickboxing and jiu-jitsu classes, including students with physical and mental disabilities
- Founder & Rhythm-Section Leader · WPGA Jazz Combo / R&B Band2023–2026
  - Founded the WPGA Jazz Combo (2023); grew from 4 to 7 members across 10+ performances
  - Co-founded and led the rhythm section of the WPGA R&B band; performed for Special Olympics Canada
- Grad Committee Treasurer · WPGA Class of 20262025–2026
  - Managed the budget, vendor payments, and fundraising bookkeeping for the graduating class

## Awards & Certifications

- Awards
  - UBC Physics Olympics · Bronze Medal, lab event (2026)
  - WPGA Citizenship Award
  - Alfred Lu Spirit Award
  - WPGA Merit Award (×2)
  - WPGA Music Program Hall of Fame
  - AP Scholars Award
  - Kumon Math · Outstanding Academics (2018–2023)
- Certifications
  - Google AI Professional Certificate
  - Core Connectors Mental Health Literacy Certificate · Adam's Apples Foundation
  - CPRC First Aid Certificate
  - MMA Black Belt · Jiu Jitsu & Kickboxing
  - BC Novice Driver's Licence

## Activities & Skills

- Activities
  - Varsity Tennis · WPGA · Vancouver Lawn Tennis & Badminton Club
  - Euclid Mathematics Contest 2026
  - Volunteer · Kerrisdale Community Centre, Camp Jubilee restoration, WPGA productions
- Software
  - Python · Java · SQL / SQLite
  - OpenCV · YOLOv8 · OpenVINO
  - Streamlit · Pandas
  - Git & GitHub · VS Code
- Hardware
  - ESP32 · Arduino · ESP-IDF
  - Soldering · breadboarding · I<sup>2</sup>C wiring
  - RC platforms: servos, ESCs, foam-board airframes