Aiden Kuemmerle (He/Him) **Integrated Engineering** Vancouver, BC

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TECHNICAL SKILLS

CAD & Mechanical Design	Fusion 360 | SolidWorks | AutoCAD | Blender
Embedded Systems & Programming	Python | Java | C++ | Arduino | Raspberry Pi | ESP32 | Sensor integration | Basic web interfaces | Procedural 3D modelling
Prototyping, Fab & Test	FDM 3D printing | DFM for CNC/Waterjet/3D print | Hand & power tools | Soldering | 3-axis CNC

EDUCATION

University of British Columbia **Expected: Apr. 2029**
Bachelor of Applied Science - *Integrated Engineering, Mechatronics Focus*

ENGINEERING OR DESIGN STUDENT TEAMS

Canada-Wide Science Fair, Youth Science Canada **Mar. 2024 – Jun. 2024**
Finalist
- Designed and prototyped **Leaf Walker**, an innovative forestry chassis concept using a unique virtual pivot steering system to minimize soil damage and improve maneuverability over conventional articulated designs, resulting in 32% less shear area.
- Awarded, Best in Class and the Transport Award at the regional level before advancing to nationals, delivering technical presentations to diversely educated audiences .

Suspension Team Member, UBC BAJA **Sep. 2025 – Present**
- Designed, validated and manufactured suspension components for a BAJA vehicle to compete in future competitions through stringent safety factor analysis.
- Manufactured and assembled parts as a team and met project deadlines.
- Developed testing methods and software for design validation and feedback using BeamNG.tech simulation utilizing previous algorithmic geometry experience to allow easy changed between vehicle generations, as well as parameter-based geometry for suspension and the gearbox.

TECHNICAL WORK EXPERIENCE

Litholamps PG, Prince George, BC **Dec. 2022 – June 2024**
Design Lead
- Built image-to-mesh conversion pipeline in Python with OpenCV, generating 3D geometry via direct vertex manipulation, creating a lithophane lampshade.
- Developed customer-facing interface with shader-based implementation of mesh processing code, enabling real-time product editing and preview using client hardware resources.
- Led marketing and technical development, resulting in increased product recognition and sales.

Modulus Drawers, Personal Project **Jun. 2023 – Present**
- Designed and built a modular drawer system compatible with widely used open-source storage layouts, with future plans for automated sorting and export.
- Created a configurator using packing algorithms with group and categorical reasoning to find optimal item arrangement.