

# Sebastians Krols

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## TECHNICAL SKILLS

- ❖ **Advanced (200+ hours):** CAD (Solidworks, Fusion, Siemens NX), 3D Printing (FDM & SLA), Microsoft Excel, Python, Linux, DfM, Prototyping, IoT Integrations, Waterjet Cutting, Full Workshop Toolkit
- ❖ **Proficient (50+ hours):** FEA (Ansys), CFD (STAR-CCM+), CNC Routing (Fusion), Carbon Fibre Layups, Soldering, APIs, Simulink + MATLAB, RAG database, Injection Mold Design, CATIA V5
- ❖ **Currently Learning:** PCB Design, Manim (Mathematical Animation Engine), Blender

## TOP PROJECTS

VIGO: AI Recording Device   Steering and Controls Lead   10.3kW Home Battery Storage

## WORK EXPERIENCE

**University of British Columbia, Faculty of Applied Science**   **September 2025 – Present**  
*Undergraduate Teaching Assistant*   *Vancouver, Canada*

- ❖ Supporting weekly design studios of 50+ first-year engineering students alongside the course instructor, guiding teams through concept development, prototyping, report preparation and teaching design skills (CAD).

**Integrated Engineering Student Council**   **May 2025 – Present**  
*Vice President of Finance*   *Vancouver, Canada*

- ❖ Overseeing a \$13,000 annual budget and managing all financial operations, including reimbursements, payments, and funding for events and initiatives.
- ❖ Running both cash and online finance systems, ensuring accurate record-keeping and compliance with AMS and EUS financial policies.
- » *Projects: [Planning and managing a \\$13k budget](#)*

**University of British Columbia, Faculty of Integrated Engineering**   **October 2024 – Present**  
*3D Print Shop Manager*   *Vancouver, Canada*

- ❖ Teaching IGEN 230 workshops on CAD modeling, 2D/3D design, and design for manufacturing.
- ❖ Keeping 7 FDM printers and 2 SLA printers running smoothly while handling 35-50 print jobs every week.
- ❖ Leading the transition of 7 Raspberry Pi units from OctoPrint to PrusaConnect.
- ❖ Conducted 10+ hiring interviews and trained 4 new team members to operate at the shop.
- » *Projects: [Leading interviews and how to motivate a team](#)*

**UBC Formula Electric**   **September 2023 – Present**  
*Steering and Controls Lead*   *Vancouver, Canada*

- ❖ Leading a team of 3 to design and validate steering and control components for the 2026 car.
- ❖ Consulting team members with their projects and giving technical feedback
- » *Projects: [Design considerations for Hexray 2026](#)*

**RTU Science and Innovation Center**   **June 2024 – August 2024**  
*Mechanical Engineer*   *Riga, Latvia*

- ❖ Resolved a 5-year stalled project for clients, resulting in a \$5000 deal with the company.
- ❖ Designed CAD models for various clients and mold designs for the Latvian luge team
- ❖ Supervised the 3D printing lab, managed 3 Prusa and 1 Bambu Labs printers, oversaw 150+ hours of printing time.

## INTERESTS & HOBBIES

- ❖ **Sports:** Golf, Tennis, Basketball, Cycling, Sim Racing
- ❖ **Music:** DJing, Trumpet, Jazz and Orchestral Music

