Jeremy **Voldeng**

Bachelor of Applied Science - Engineering Physics

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Technical Skills

Software, Swift | Java | Python | C | Matlab | Git/Github | Software Structure | Digital Systems
Electrical, Oscilloscope | Digital Multimeters | Function Generators | Protoboards | Soldering
Mechanical Design, AutoCAD | 3D Printing | Laser Cutting | Heat Transfer | Error Analysis | CNC Design
General, Microsoft Office | Creative Problem Solving | Attention to detail | Product Development Cycle

Education

University of British Columbia
Vancouver, BC

BASc - Engineering Physics — *Sept 2016 - April 2021*

- Graduated in April 2021. Enrolled in courses such as Mechanics of Heat Transfer, Electronic Circuits for Electromechanical Design, and Statistical Mechanics.

Work Experience

Snow Spines Inc
Vancouver, BC

Junior Design Engineer — *July. 2021 - Mar. 2022*

- Lead product development of an electronic assist to back country-skiing. Design was critical to validate start-up concept.
- Iterative product design integrated background knowledge in mechanical CAD and electronics. Spearheaded design of motor fixture, electronics enclosures, and cable assembles. Used CNC and 3D printing for rapid prototyping.
- Strong understanding of product life cycle. Iterated through concept design, rapid prototyping and designed testing procedures to ensure correctness. Remained agile through shifting requirements.

Slant / JABT Laboratories
Vancouver, BC

Creative Software Engineer — *Jan. 2018 - Apr. 2018*

- Worked as a team to develop an interactive display with information about the history of residential schools in Canada.
- Designed an intuitive interface for first time users that translated raw data into an easily digestible manner.
- Worked on coordinated and syncing up an array of Apple devices with a focus on minimizing communication latency.
- The end result was an interactive, cohesive map synchronized across 3 displays containing location-based historical information.

Project Experience

Engineering Physics 459 Capstone Project
Vancouver, BC

ReDeTec Plastic Pelletizer — *Sept. 2019 - Apr. 2020*

- The first of two capstone courses. Designed a grinder system that can reduce PET plastic water bottles into small flakes or pellets that can then be fed into an extruder to produce 3D print filament.
- Throughout the project I gained teamwork and project management experience. The last 4 months had a large mechanical design focus, prototyping and testing different grinder solutions.

Engineering Physics 479 Capstone Project
Vancouver, BC

D-Wave Magnetic Field Degausser — *Sept. 2020 - Apr. 2021*

- The second of two capstone courses. Designed a degaussing system capable of degaussing PCB's below 50pT. We designed the system over the fall of 2020 and constructed it over Spring.
- Gained valuable project management from discussions with our sponsor D-Wave as well as professionals studying in the field. Communication played a large part in our understanding of this projects goals.

Engineering Physics 253 'Robots'
Vancouver, BC

Summer Robotics Course based on MIT and Stanford courses — *June. 2018 - Aug. 2018*

- Placed 3rd in an intensive 2 month course competition focusing on rapidly prototyping and designing an autonomous robot as a team of 4, capable of efficiently traversing through a specific obstacle course.
- I was the mechanical lead of the team, designing a functional chassis consisting of a complex set of treads able to traverse over gaps and uneven terrain.
- Rapid prototyping and testing consisted of 3D modelling software and equipment such as a laser cutter and 3D printers.

Lego Portrait Designer App

Personal Project — *Fall 2021*

- In my spare time, designed a GUI in python that takes an uploaded image and creates a Lego version of it along with a set of PDF instructions. It was then built into a website, which can be viewed on my portfolio website linked above.