

# Simon Hathout Willard

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Second year Engineering Physics student at UBC with skills in CAD, rapid prototyping, and engineering design. Strong computer skills and able to pick up new software and tools quickly.

## EDUCATION

### **2<sup>nd</sup> Year Engineering Physics | 2023 – Present | UBC Applied Sciences**

- Courses include software development, engineering design, thermodynamics, and electromagnetism. A full list can be found at <https://hathoutwillard.github.io/courses/>
- Worked in a team of 6 to design and code a robotic claw capable of lifting a variety of objects, leading to the highest score in our section
- Business communication skills, including writing technical memos and delivering presentations
- Cumulative average: 92.9%
- Received the Trek Scholarship for high academic performance

## EXPERIENCE

### **Automation Subteam Member with Agroponics Design Team | 2023 - Present | UBC**

- Used ESP32 and Arduino sensor systems to measure PH and temperature in a nutrient solution, improving plant growth and productivity
- Wrote code to format data using JSON and transfer it wirelessly using MQTT
- Used Git and Github for sharing code and documentation, improving maintainability

### **NorthForge Design Space | Summer 2024 | Winnipeg, MB**

- Received formal training with woodshop and laser cutter tools, ensuring safe use
- Designed and fabricated personal projects including picture frames, miniature blinds, and a cross-stitch holder. Photos can be found at <https://hathoutwillard.github.io/posts/>
- Worked part time as a contractor with Maker Mind Toys, sanding and ensuring consistent quality of wooden toys for children.

### **Cook at Camp Wasaga | Summer 2023 | Wasagaming, MB**

- Lead a team to prepare meals for a camp of 60 without direct supervision, ensuring timely and high-quality service.
- Managed multiple concurrent tasks in a high stress environment. Implemented and refined existing recipes to better suit camp conditions.

## SKILLS

**Programming** - Java, C, Python, HTML/CSS, Hugo SSG, SQL, Arduino

**Design Tools** - Fusion 360, Onshape, Machine Shop, 3D Printing, Laser Cutting, Woodshop

**Software** - Git and Github. Microsoft and Google suites, particularly Excel.

**Languages** - Native English speaker, B1 level German with 1 month exchange

**Associations** - Engineers and Geoscientists BC student member, ASHRAE student member