

Robin FRUYTIER

Integrated Engineering
University of British Columbia

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Technical Skills

Design

- Prototyping
- Rapid Prototyping
- CNC

Computer

- Computer Aided Design (SOLIDWORKS, AutoCAD, OnShape, Fusion 360)
- Computer Aided Manufacturing (Fusion 360)
- C Programming
- Microsoft Office
- Software and Hardware Setup
- Gimp
- Arduino
- 3D Printing

Management

- Leadership
- Teaching

Languages

- French - English **Bilingual**

Certifications

- Pleasure Craft Operator Card #18032786781
- Restricted Operator's Certificate (Maritime)
- Standard First Aid (Expired)
- CANSail 1 & 2 Instructor - Trained (Expired)

Education

University of British Columbia Expected May 2027
Bachelor of Applied Science - Integrated Engineering

Technical Work Experience

Victory Advanced Technologies

Jr. Developer May 2025 - August 2025

- Designed, recommended and assembled 1-metric-ton maximum capacity electric linear actuator press for motor assembly line
- Independently learned and applied Finite Element Analysis (FEA) to rigorously test and improve design integrity of press design
- Mastered Computer Aided Manufacturing (CAM) software and CNC machine operations to make production-level parts
- Manufactured high precision parts for motor using CNC

Jr. Developer June 2024 - August 2024

- Designed, recommended and assembled new semi-automated copper coil winding machine to cut process cycle time
- Applied SolidWorks knowledge to OnShape for production of 3D designs capable of being CNC machined and 3D printed
- Operated 3D printer and workshop tools to make and assemble 3D designs
- Streamlined CNC machine tool storage system, reducing tool retrieval time and improving machining process efficiency

Other Work Experience

Department of National Defence June 2023 - August 2023

Sail Staff CTC Greenwood (Petty Officer 2nd Class)

- Supervised cadets on land to ensure appropriate behaviour and readiness
- Collaborated with fellow instructors to design and deliver comprehensive sailing lessons, ensuring course proficiency
- Ensured proper sailboat rigging, cadet sail attire and equipment
- Supervised cadets on water for safety and skills development

Royal Kennebecasis Yacht Club June 2021 - August 2021

CANSail Level 1 & 2 Instructor

- Instructed children, teens, and adults on basic seamanship and CANSail 1&2 level sailing skills
- Monitored weather conditions and hazards for safety

Poley Mountain December 2018 - March 2021

Snowboard Instructor Apprentice

- Assisted certified snowboard instructors in teaching snowboard lessons
- Developed excellent instructional skills while helping children to learn how to snowboard

Engineering Student Teams

Sailbot

September 2024 - October 2025

Mechanical Team Member

- Developed modular cradle for speedy launching of research vessel Polaris from sandy beach with keel and wing sail attached
- Participated in manufacturing of sailboat Polaris by cutting, sanding, and epoxying hull with carbon fiber

Technical Projects

Rain Water Harvester

March 2024 - April 2024

- Designed system which collects, stores, and treats rainwater to supply drinking water to small remote community houses in BC
- Maximized rainwater system's performance and community satisfaction through Excel simulations based on five-year horizon, using public rainfall data; design ranked 3rd out 100+ competitors

Claw Project

January 2024 - February 2024

- Planned and fabricated working claw using aluminum, cardboard, servo motor, ultrasonic sensor and Arduino
- Design resulted in strong and sturdy claw capable of easily picking up diversely-shaped, heavy & light objects, outperforming project requirements

Cardboard Chair Design

September 2023 - October 2023

- Conceived and built cardboard chair for use in disaster scenarios using a 1m x 1m cardboard sheet

Volunteer Experience

Shad Canada

September 2022 - October 2023

Shad Ambassador

- Presented SHAD program and shared program experience to eligible students to spread program awareness and opportunities
- Encouraged students to apply to program to build valuable skills and experience in STEAM

Awards

2023 National Sea Cadet Scholar

2023

The Naval Memorial Bursary

2023

Inquirer Certificate of Recognition of IB Qualities

2023

Given for being curious and supporting love of learning by developing skills for seeking knowledge

Reta G. Whittaker Prize

2023

Presented to students with strong academic performance

The Lord Strathcona Medal

2022

One of highest cadet awards; demonstrates hard work, dedication, service to Canada, excellence in all pursuits, vision, perseverance and intelligence and focus on stewardship of Canada