

Alexander Parks

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Shawnigan Lake, British Columbia, V0R 2W3

EDUCATION

WHMIS Certification 2018

Bachelor of Applied Science - Mechanical Engineering 2022
Queen's University • Kingston, Ontario

SKILLS

- Technical proficiency in Excel, SolidWorks, MATLAB, Kontakt, and EES.
- Performed in-depth data analysis on large data sets and built detailed simulations using Python, C, and VSPAero.
- Deep understanding of CAD and its application in assembly design and part modeling.
- Advanced communication and teamwork skills paired with a desire to learn and constantly expand skillset.

WORK EXPERIENCE

Senior Design Engineer, Powertrain Sep 2021 - Apr 2022
Queen's Racing Team

- Completed dozens of documentation and reports for the team, and design improvement opportunities.
- Coordinated and led several proposal and design presentations and delivered project updates to the team.
- Leading a team of 3, conceptualized and spearheaded a pneumatic shifting system resulting in a Python simulation and model of the mechanism through Numpy and Pandas.
- Laid the groundwork for post-pandemic design and prototype improvement by improving the shifting system safety rating by 45%.

HVAC Technician/Mechanical Assistant May 2021 - Aug 2021
Brentwood College School • Mill Bay, British Columbia

- Oversaw the maintenance and servicing of HVAC and air filtration systems during the COVID-19 pandemic in 15 buildings across campus, upgrading up to 45 filters per building.
- Planned and completed pickup and delivery of service and replacement parts across Vancouver Island.
- Engaged in and organized projects including a multi-week heating system upgrade to two residential buildings.

Mechanic Assistant

Jun 2018 - Aug 2019

Brentwood College School • Mill Bay, British Columbia

- Performed the servicing and maintenance of 12 boats and motors used by the rowing program, finishing in under 80% of the allocated time.
- Accelerated the repair and service of a fleet of 14 road vehicles and dozens of power equipment on campus.
- Installed and optimized the wiring in each boat, replacing and adapting hundreds of feet of electrical cable for use in saltwater conditions.

VOLUNTEER WORK

Regatta Safety Boat Volunteer

Apr 2018 - Apr 2018

Brentwood College School • Mill Bay, British Columbia

- Enabled the smooth operation of the International Brentwood Regatta by engineering and assembling a 1.5-kilometer rowing course in the days before the event.
- Facilitated the safety of over 1700 athletes alongside the coastal search and rescue, by taking a part in a 2-man safety boat crew and running the crew loading and unloading docks.
- Dedicated 4 days to the event, working over 38 hours in 4 days before and during the event.

AWARDS AND HONOURS

George Christie Design Award

2022

- The award is presented to individual students or groups of students in Mechanical Engineering on the basis of their performance in the area of design and product modification in their fourth year Mechanical Engineering Design Project. The award winners are chosen by the department.
- Presented this award for UAM Hybrid Powertrain Design Capstone project completed for the Structural Multidisciplinary System Design lab.
- Given for the development of a detailed python simulation, justification of battery pack assembly and the quality of the proposed designs, exceeding the client's expectations.