

Shaafay Hussain

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EDUCATION

The University of British Columbia

May. 2025

Bachelor of Applied Science, Civil Engineering

- Dean's List (2023-2024), 3.70 GPA
- Concentration in Resilient Infrastructure Management

PROJECTS

Topology Optimization of a Stadium Roof

Sep. 2024 – Apr. 2025

UBC & Altair Engineering

- Designed and optimized a stadium roof using Altair Inspire and S-FRAME, improving material efficiency and structural integrity while collaborating with Altair and a 5-member engineering team
- Performed structural analysis using S-FRAME to verify compliance with BC building codes and ensure load-bearing performance of the optimized roof design
- Led coordination efforts by organizing client meetings and setting internal deadlines, ensuring all design deliverables were completed accurately and on time

Sustainability Design of a Cistern Tank

Jan. 2021 – Apr. 2021

UBC

- Prevented contamination during cistern refills on a Manitoba First Nation reserve by designing a custom hydraulic coupling attachment in SOLIDWORKS to improve water system hygiene
- Built and tested a 3D-printed prototype, validating filtration performance and optimizing design for manufacturability and durability
- Won \$15,000 in funding by placing 2nd in the Western Canada AquaHacking Challenge

3D Model of Kenworth Dump Truck

Sep. 2020 – Dec. 2020

UBC

- Designed a full-scale 3D model of a Kenworth dump truck using SOLIDWORKS
- Demonstrated proficiency in part assemblies and mechanical detailing through accurate component modelling

WORK EXPERIENCE

Marshalls/Homesense

May. 2024 – Present

Warehouse & Store Associate

Langley, BC

- Received and sorted incoming merchandise to streamline inventory flow and support daily restocking targets
- Assembled store furniture and displays, ensuring structural stability and alignment with layout standards
- Operated registers and processed transactions accurately in a high-volume retail environment
- Adapted to varied warehouse and front-end roles to support team efficiency and store operations

Dollarama

Aug. 2019 – Aug. 2020

Store Associate

Surrey, BC

- Operated as a front-line cashier, processing transactions efficiently while maintaining customer service standards
- Supported store operations by stocking merchandise and serving during the COVID-19 pandemic as an essential worker

SKILLS & INTERESTS

- **Lab Skills:** Concrete & soil testing; Structural analysis; Surveying & GIS; Traffic flow analysis
- **Skills:** AutoCAD; SOLIDWORKS; Microsoft Suite; Civil 3D; Revit; SAP2000; C++; Python;
- **Interests:** Technology; Sports; Cars; Volunteering; Movies;