

Kingsley Chai

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EDUCATION

University of British Columbia Bachelor of Applied Science - Mechanical Engineering (General)	Vancouver, BC July 2020 – April 2023
Camosun College Advanced Diploma - Mechanical Engineering Bridge	Victoria, BC September 2019 – April 2020
Southern Alberta Institute of Technology (SAIT) Diploma - Mechanical Engineering Technology, Design and Analysis	Calgary, Alberta September 2017 – April 2019

SKILLS

- 2D & 3D CAD programs such as SolidWorks, AutoCAD, and Fusion 360
- Proficient with SLA and FDM 3D printing, including the slicing software such as Ultimaker Cura
- Proficient in safe use of machine shop equipment and hand, air, and power tools
- Proficient in Microsoft Office Suite
- Experienced in MATLAB
- Effective interpersonal and communication skills
- Experienced in working in fast-paced, challenging settings
- Ability to analyze and find creative solutions for challenging issues
- Adaptable and works well independently and in a collaborative team environment
- High attention to detail, ability to multi-task, excellent time management, and organizational skills

TECHNICAL PROJECTS

Braking Co-lead, Marketing Lead UBC Concrete Toboggan	Vancouver, BC September 2021 – Present
<ul style="list-style-type: none">• Helped designed the braking subsystem on the concrete toboggan.• Conducted SOLIDWORKS simulations to ensure the system could withstand forces applied on the structure• Utilized various means of manufacturing, including but not limited to machining, 3D printing and waterjet cutting.	
Vehicle Mechanics / 3D Printing Consultant UBC Supermileage Club	Vancouver, BC September 2022 – Present
<ul style="list-style-type: none">• Lead the procurement and maintenance of the club's 3D printer, optimizing prints and maximizing printer uptime.• Waterjet Cut and produced parts for the Hydrogen Fuel Cell Prototype. Participating in SEMA 2023 as part of the Vehicle Mechanics team.	
Competitor, Team Lead UBC Design League	Vancouver, BC February 2022
<ul style="list-style-type: none">• Completed a FDM 3D Printer CAD model that accurately reflects the real-life counterparts and the team's design package that aims to improve the leveling mechanism, bed adhesion, motion system, and the extruder.• Created a novel design idea which incorporated encoders in addition to existing bed leveling technology to ensure a flat print bed.• Won 1st place in the Technical Engineering Prompt at the 2022 UBC Designathon, a 36 hour CAD design marathon.	

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Capstone Project, Waterslide Scaling Analysis

The University of British Columbia

Vancouver, BC

September 2021 – April 2022

- Explored a low cost method of prototyping waterslides for our client, WhiteWater West.
- Performed scaling analysis looking at fluid behavior and scaling proportions to determine if the method was accurate within the requirements of the client.
- Constructed a scale model of a certain slide with a closed loop water system that was determined to mimic the flow behavior close enough for the client's needs.
- Calculated the required flow rate to overcome the surface tension effects of water, and determined required pump head and pump flowrate in order to mimic the real life version.

Capstone Project, Refrigerated Beer Pong Table

Southern Alberta Institute of Technology

Calgary, AB

September 2018 – December 2019

- Designed an improved beer pong table that would double as a refrigeration unit, allowing the beverages to stay cool
- Applied knowledge from SAIT courses to allow for proper selection of refrigeration units, refrigeration loops and insulation design to design the optimal table.

WORK EXPERIENCE

Part-Time Remote Tutor

PAPER

Vancouver, BC

June 2021 – Current

- Tutored students in Mathematics and Sciences over a web-based platform.
- Utilized different methods of teaching to suit student's needs.

Tea Barista

Teadot UBC

Vancouver, BC

August 2022 – December 2022

- Prepared beverages and food products in a timely manner
- Took customer orders on POS system while providing excellent customer service.

Backend Worker and Receptionist (Summer Position)

Artee Screen-printing & Embroidery

Vancouver, BC

June 2021 – September 2022

- Ensured that orders are correct and prepared them for the screen-printing process
- Perform quality control to ensure that each shirt is up to standard.
- Worked with shipping and receiving to make sure the orders are delivered in a timely manner.
- Answered calls and inquiries for our printing business, as well as assisted customers who walked in.

Receptionist

Standard Piano

Calgary, Alberta

June 2018 – August 2020

- Answered phone calls and emails to book timeslots for tuning appointments.
- Organized office workspaces and ensured general cleanliness.
- Assisted with physical duties while moving and checking inventory.