

Yifei Xiao

SOFTWARE ENGINEER · UBC SCIENCE CO-OP

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Experience

Intel

Vancouver, British Columbia

PYTHON DEVELOPER INTERN

Sep 2019 - May 2020

- Developed a fully automated pipeline in python that added a new Formal Verification flow to aid ASIC Developers in verification of design specifications.
- Built virtual hardware components to match design specifications and tests in SystemVerilog
- Designed accurate assertion tests and coordinated with other block members to ensure design specifications were met.

Calgary Board of Education

Calgary, Alberta

MECHANICAL CADD TEACHER ASSISTANT

Sep 2016 - Jun 2017

- Assisted students of the course in building 3D models using the Autodesk Inventor Software.
- Designed the website for the course in collaboration with school staff and other TA's.
- Built example 3D models to assist students in understanding of the course content.

Glow: JA Southern Alberta Student Company

Calgary, Alberta

WEBSITE DESIGNER

Oct 2016 - Mar 2017

- Designed the company website in collaboration with other members of the same department.
- Collaborated with members of other departments to update website and social media platforms.
- Awarded the "Company of the Year" award by JA Southern Alberta.

Projects

Recipe Selector

Vancouver, British Columbia

TECHNOLOGIES: PYTHON

Sept 2021

- Implemented an app that allowed users to record ingredients in the pantry and recommended recipes that could be made using the available ingredients.
- Utilized python random to make suggestions on a generated list of recipes.

UBC Courses Query

Calgary, Alberta

TECHNOLOGIES: TYPESCRIPT, HTML

Sep. 2020 - Jan 2021

- Designed a UI that allowed users to enter specifications to filter through a UBC courses data set and returned courses relevant to the inputted filters.
- Parsed data sets in the form of zip files using JSZip and processed into JSON files for querying.
- Utilized parse5 to obtain locations for each course from the UBC Wayfinding website.
- Built a scheduler algorithm that scheduled course sections into available classrooms while maximizing student enrollment and minimizing distance between classes.

Image Filler

Vancouver, British Columbia

TECHNOLOGIES: C++

Feb 2019 - Mar 2019

- Built a tool that allowed the user to fill a region of a PNG with a set color or pattern
- Designed the filler around DFS and BFS, incorporating both into algorithms that filled the PNG in differing patterns.
- Implemented the region detection algorithm around a set difference between the starting pixel and surrounding pixels based on values of hue, saturation, and luminance.

Habit Tracker

Vancouver, British Columbia

TECHNOLOGIES: JAVA

Sept 2018 - Jan 2019

- Designed a habit tracker program that helped users track weekly habits to maximize wanted habits while minimizing unwanted ones.
- Incorporated J-Unit for testing and JFrame for building UI on Java Observer Pattern.

Skills

Programming Python, Java, JavaScript/TypeScript, C++, Latex, Linux

Education

University of British Columbia

Vancouver, British Columbia

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

Sep 2017

- Anticipated Graduation: 2022