Kai Mikkelsen

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https://kaimikkelsen.github.io

Education

Bachelor of Software Engineering   2017 - Present
University of Victoria

Technical Projects

Audio Applications   August 2021
- Programmed an instrument tuner and tap tempo application using the Juce framework. Requiring knowledge of audio buffers, the Fourier transform and using Juce to create User Interfaces.

Personal Website   April 2020 - Present
- Designed a web page to highlight my personal profile and develop my user interface skills.

Unity Platformer Game   April 2020
- Created a basic platformer-style game as an introduction to the Unity engine.

Barbecue Temperature Controller   October 2019
- Developed an Arduino microcontroller based charcoal barbecue thermometer. Involved researching, soldering, testing, and programming multiple electrical components.

Work Experience

QA Automation Developer   May – August 2021
Ingrooves Music Group (Victoria, BC)
- Developed hundreds of automated Web API tests in Python, testing for endpoint responses and verifying each API was returning the information listed in the documentation.
- Worked with four Ingrooves projects. Each project required different testing approaches to make sure their API was working correctly.
- Reviewed and learned from code written by experienced team of analysts and developers, who also reviewed my code, with high emphasis on clean and legible code.

Quality Assurance Analyst   September – December 2020
Unity Technologies (Vancouver, BC)
- Worked with a team of more than 20 developers, designers, project managers and QA analysts in an agile development environment.
- Tested a complex cryptocurrency trading web application for major banks with multi-level security features and various interconnecting components.
- Ran intricate tests involving manipulating fields in the database, sending API requests using Postman, and transferring money between accounts.
- Filed 100+ bugs. Other daily tasks included: deploying builds, performing bug regressions, detailed scenario testing, test case creation, and TestRail test runs.

Jr Software Engineer   May – August 2019
TC Helicon (Victoria, BC)
- Developed an I^2C driver to communicate with a touch sensor IC, this involved reading numerous product datasheets, incorporating the MCU Expresso SDK into my code and developing my own efficient algorithms for data transmission and processing.
- Expanded on various UI elements in a C++ based PC application: Implemented app-wide tooltips and designed and implemented a new in-app tutorial system, giving users an improved learning experience by using dynamic learning paths and videos.

References

Clayton James (Ingrooves)	Harjot Otal (Unity)	Daniel Davies (TC Helicon)
cjames@ingrooves.com	Harjot.otal@unity3d.com	ddavies09@gmail.com
778-655-2182		

<u>Languages</u>
(In Order of Proficiency)
C
Python
C++
Java
HTML/CSS
SQL

<u>Frameworks</u>
Juce
Pytest

<u>Operating Systems</u>
FreeRTOS
MacOS
Windows
Linux

<u>Tools</u>
Git
Visual Studio
Wireshark
Postman
Logic Analyzers
Jira
Keycloak
pgAdmin

<u>Key Coursework</u>
Signal Processing
Operating Systems
Computer Networks
Data Structures/Algorithms
Software Testing

<u>Interests</u>
Sports: Ultimate Frisbee Volleyball, Hockey.
Outdoors: Hiking, Mountain Biking, Snowboarding.
Music: I played cello for 10 years, guitar and bass in bands, and continue to write and produce songs.