

Umar Ehsan

OBJECTIVE Self-motivated software engineering student seeking for a co-op opportunity in a challenging environment to utilize my skills in the growth of the organization.

HIGHLIGHTS TECHNICAL SKILLS

- Working experience with C/C++, Java, Python, Assembly, HTML, CSS, JavaScript, PHP
- Familiar with SQL databases and version control systems such as Git
- Comfortable developing in Windows, Linux, or MacOS environments
- Proficient with the use of various IDEs such as Eclipse, IntelliJ, Visual Studio, QT
- Experienced with the object oriented programming and functional programming models
- Strong data and numerical analysis skills
- Experienced with the use of MS Office Suite

NON – TECHNICAL SKILLS

- Proven leadership ability through involvement in extra-curricular activities
- Excellent communication skills with the ability to explain complex concepts
- Team player with emphasis on collaboration during projects
- Focused and organized with attention to detail

**EDUCATION BACHELOR OF ENGINEERING - SOFTWARE ENGINEERING
UNIVERSITY OF ONTARIO INSTITUTE OF TECHNOLOGY**

- September 2016 – April 2020

PROJECTS DEBIT MACHINE | BANKING SERVER PROTOTYPE

- Developed a virtual debit card machine in C for the HCS12 microcontroller platform
- Created a virtual Bank server on the PC with Visual Basic and Java
- Simulated debit transactions, banking errors, and account changes

HOTEL BOOKING WEBSITE | BACKEND DATABASE

- Developed a hotel booking site using HTML/CSS/JavaScript
- Managed user data through the use of PHP and MYSQL database
- Developed a user-friendly front-end UI and a robust back-end
- Tested and confirmed the prototype to be production ready

PARTICLE TRAJECTORY | DISCRETE INTEGRATION ALGORITHM

- Built a discrete integration algorithm using C++ and Linux tools
- Tested the integration algorithm on a particle in an oscillating electric field
- Refined the integration algorithm to allow for accurate tracking of the particle's position using larger step size for integration purposes

EXPERIENCE RESOURCE DEVELOPMENT ASSISTANT

UNIVERSITY OF ONTARIO INSTITUTE OF TECHNOLOGY

September 2017 – Present

- Created educational resources for undergraduate students
- Performed research on course material and added supporting material.
- Created math applets through the use of HTML/CSS/JavaScript
- Researched existing educational software and created alternatives for better conformance to the project objectives
- Created interactive power point slides using the Turning-Point plugin for various courses

ELECTRONICS INSTALLER / TESTER

ECONOLITE CANADA INC., MARKHAM, ON

May 2017 – August 2017

- Ensured accuracy of installed systems through thorough testing as products needed to be 100% guaranteed free of errors and defects
- Communicated with Engineering Department, Lead Hand, and Quality Assurance Personnel to obtain and clarify order requirements
- Performed troubleshooting for defects and system faults
- Interpreted schematic diagrams and identified errors to be fixed before production commenced

VOLUNTEER EXPERIENCE

- Participated in the campus reverse career fair as a volunteer to help conduct the event in an efficient and productive manner
- Assisted in the creation of student friendly programs as the Director of the UOIT Science Council

REFERENCES AVAILABLE UPON REQUEST