Issam Akhtar

Calgary, Alberta T3G • 587 966 2417 • issam.akhtar@ucalgary.ca
https://www.linkedin.com/in/issam-akhtar-235165227

Education

Bachelor of Science: Software Engineering With A Minor in Mechatronics, Expected in 06/2024
University of Calgary - Calgary, AB

- Dean's List [Fall 2020 and Winter 2020]
- Awarded Alexander Rutherford Scholarship, Jason Lang Scholarship
- Relevant Coursework: Embedded Systems Interfacing, Digital Circuits, Computer Organization, Statistics and Machine Learning, Software Development, Data Structures & Algorithms, Foundations of Mechatronics, Principles of Software Design, Engineering Design, Operating Systems

Professional Summary

Driven to learn quickly and advance training in industry environments. Extensive skill set in computer programming and a solid background in field supporting team needs. Flexible and hardworking team player focused on boosting productivity and performance with conscientious and detail-oriented approaches.

Skills

- Proficient in C, C++, Java, Python
- Verbal and Written Communication
- Microsoft Office
- MySQL
- Team Collaboration
- Problem Solving
- Driver Level Programming
- Project & Time Management

Work History

Software Engineering Intern 07/2022 to 08/2022
Micro Engineering Tech Inc – Calgary, AB

- Maintained software systems and formulated software system requirements for a HD map marketplace
- Derived marketplace software requirements from user stories
- Work collaboratively with engineering and development teams to describe needed capabilities and provide implementation-ready requirements

Mathematics Tutor 09/2021 to present
Tutor Match – Calgary, AB

- Tutored high school and university students in many subjects such as mathematics, chemistry, physics and calculus
- Developed and integrated activities to reinforce student learning with different visualization techniques
- Recorded academic performance of student and applied information to address areas of improvement

Fall Intern, 09/2021 to 11/2021
Hunter Hub for Entrepreneurial Thinking – Calgary, AB

- Analyzed and designed multiple resilient food systems from engineering, business and environmental perspectives.
- Communicated and cooperated with corporations in order to attract investment.
- Completed assignment with end-goal of producing framework for renewal food resources.
- Worked on projects using knowledge gained in classes to put together recommendations for issues.
- Reviewed related literature and conducted investigations to support research efforts.

Projects

Movie Theatre Ticket Reservation Application - ***Fall 2022***

- Implemented the use of multiple software design patterns in order to create a GUI application which caters to users and administrators. Designed in C++ and Java but ultimately implemented with Java.
- Users can view available movies and showtimes, view available seats graphically for a selected movie, select the desired seat, make payment by credit card, receive a copy of ticket and the receipt, via email. Administrators may add/remove both movies with showtimes and users from the database
- Receives user movie and seat selection and cross references with MySQL database to ensure movie exists and seats are not booked, after any error checking, send user an email via JavaMail API

Embedded Systems Multimeter - ***Fall 2022***

- Used C to interface a PIC24F16KA101 microcontroller with ADC, I/O,UART and Timer peripherals in order to read analog voltage or resistance from a potentiometer
- Read user input from buttons to determine multimeter function and display readings in a bar graph on terminal via RS-232 communication
- Utilized watchdog timer resets to prevent unnecessary program runtime therefore saving power

Mechatronics Remote Control Car with Obstacle Avoidance - ***Fall 2022***

- Used C to program an arduino to receive signals from a remote control and relay commands to motors to drive vehicle in four directions
- Implemented a closed loop feedback system which utilized an ultrasonic transducer to detect obstacles, scan vehicle peripherals then the microcontroller decided which direction to turn in order to avoid the obstacle and actuates the drive system in order to turn.

Food Bank Management System - ***Winter 2021***

- Using Java, developed a management system which takes food bank parcel requests from a user specified amount of individuals via GUI and removes food from inventory in a MySQL database
- Allows customers to customize orders with the number of people in a family and the amount of nutritional needs.
- Utilized test driven development by first creating unit tests and developing the application with respect to each of the test cases then refactoring until application was finished

Machine Learning CURE Project - ***Fall 2021***

- Utilized resources such as Excel and Python in order to solve problems in probability and statistics
- Developed familiarity with python pandas and libraries for data analysis and visualization
- Modeled and tested research questions using real life data and statistics using Python to evaluate and develop a machine learning model.

Languages & Interests

- Canadian Citizen: Fluent in English, Urdu and Punjabi
- Interests include: Hiking, Billiards, Games, Arduino, Basketball, Formula 1