MIAN RAFAY

Hamilton, ON · 647-917-2936

rafaym1@mcmaster linkedin.com/in/mianrafay github.com/MianR1 mianrafay.com

PROFESSIONAL SUMMARY

A creative, divergent thinking Software Engineer intern with extensive expertise within different coding languages. Proceeding to my seventh year of passionate, robust coding involving the creation of high-quality programs. Holding the potent ability to effectively deliver and assist valuable solutions and developments to a hiring company. Prepared to think outside the box and strengthen the software community by quickly catching on and adapting to new forms of intelligence and the latest technologies. Demonstrated experience and interest by developing my personal website and many personal/collaborative projects. Currently pursuing an Honors Computer Science degree at McMaster University.

SKILLS

PROGRAMMING LANGUAGES: Python, C#, C, C++, Java, JavaScript, HTML, CSS, SQL, PowerShell
TECHNOLOGIES: Word, PowerPoint, Excel, React.js, AutoCAD, Arduino, Windows, MobaXterm
SOFT SKILLS: Critical Thinker, Problem Solver, Attentive Learner, Collaborative, Expeditious, Detail Oriented

EXTRACURRICULAR

HACK THE NORTH CONTESTANT {PASSWORD ENCRYPTER DATABASE} | **2021**
Designed and presented a custom-made password encryption program done using C++ which stores encrypted passwords on an SQL database.

ONTARIO TECH UNIVERSITY ROBOTICS COMPETITION FINALIST | **2019**
Designed and programmed an NXT robot which qualified for the school team and competed at the Ontario Tech University for the robotics competition. Through teamwork and hard work, our team achieved a position in the finals.

SCARBOROUGH MATH OLYMPICS CONTESTANT | **2017**
Selected male representative from the school to participate in the Math Olympics after achieving the highest grade on the Waterloo Math Contest.

ED APP HACK | **2016**
Built a prototype of a phone app related to health and showcased it to judges at the event.

PROJECTS

MATRIX CALCULATOR |**C++**
Computes addition, subtraction, and multiplication with different order matrices specified by the user.

FUNCTIONS INTERSECTION CALCULATOR|**PYTHON**
Given two functions by the user as input, this program calculates the intersection point of the two functions within a certain interval.

USER PASSWORD AUTHENTICATOR |**C#**
Checks password syntax of user input to authenticate the password while storing all previous passwords on a file.

MEMORY GAME |**C#**
Randomly generates cards with letters faced down and you must match all pairs.

PERSONAL WEBSITE |**HTML, CSS, JS**
Personal website designed with eye catching framework including all things in one's portfolio to show to a company's hiring manager. Showcases all my personal projects, skills, and objectives.

EXPERIENCE

HOME-BASED TUTOR| **2019 – PRESENT**
Tutoring students from grades 8 - 12 in mathematics and computer science.
Languages: Python and C/C++.
Mathematics: Calculus and Vectors, Linear Algebra, and Advanced Functions

ELECTIONS CANADA INFORMATION OFFICER | **2021**
Directed individuals to the voting sites and answered questions regarding elections.

EDUCATION

BASc, HONOURS COMPUTER SCIENCE (CO-OP) |**SEPT 2021 – PRESENT**
MCMASTER UNIVERSITY
Deans' Honour List
GPA: 10.6/12

ONTARIO SECONDARY SCHOOL DIPLOMA (OSSD) | **2021**
SATEC @ WA PORTER CI
Ontario Scholar

WEB DEVELOPMENT BOOTCAMP | **2020**
UDEMY

RELEVENT COURSES

DATASCI 2G03
Performed hands-on scientific programming using C/C++ under Linux/Unix/Windows. Implemented algorithms, numerical methods, program development and programming in a modern high-level language.

COMPSCI 2C03
Implemented Data Structures and Algorithms using Java. Made projects/assignments using stacks, queues, hash tables, and binary trees. Searching and Sorting; Mergesort, Heapsort ,Quicksort, Shellsort, Time Complexity, Minimum spanning trees, traversals, shortest paths.

COMPSCI 2ME3
Completed individual and collaborative assessments with teams of 4-5 individuals. Worked with Classes and inheritance, class invariants, interface specifications; object-oriented design patterns; exception handling; tools for interface documentation, testing, program analysis; requirements documentation; quality attributes; development models.

COMPSCI 2GA3
Accomplished tasks involving but not limited to logic gates, computer arithmetic, instruction-set architecture, assembly programming, translation of high-level languages into assembly. Computer system organization: data-path and control, pipelining, memory hierarchies, I/O systems; measures of performance.

COMPSCI 1JC3
Experimented with functional programming language, Haskell. Used recursion, pattern matching and worked with custom data types. Developed critical thinking skills through a wide range of complex logic problems.

COMPSCI 1MD3
Worked with object-oriented programming concepts in Python. Familiarity with SQL databases, YAML files, and JSON files. Developed problem solving skills through series of problem questions involving algorithms.

COMPSCI 1XD3
Implemented design patterns and learned design techniques. Used elm and took part in team assignments to complete tasks in a timely manner.