# Maher Muhtadi

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## **EDUCATION**

### Bachelor of Science, Computer Science

Undergraduate

Toronto Metropolitan University (formerly Ryerson), Canada

September 2020 - December 2023

- Scored a cumulative GPA of 3.95 out of 4.33
- Earned a place on the Faculty of Science Dean's List every year since 2021

#### General Certificate of Education, A-Level

High School

Bangladesh International School, Saudi Arabia

 $June\ 2020$ 

International General Certificate of Secondary Education, O-Level

High School

Bangladesh International School, Saudi Arabia

June 2018

#### CERTIFICATIONS

## Security Guard Licence

Private Security and Investigative Services, Ontario

March 2022 - October 2023

Emergency First Aid, CPR, and AED Level C Certification

The Academy for First Aid and Safety Training

October 2021 - October 2024

#### SKILLS

Programming Languages: Python, Java, C, JavaScript, TypeScript, Perl, PHP, ASP, Ruby, ECLiPSE Prolog, Elixir,

Haskell, Bash, Pharo Smalltalk, Visual Basic, Common Lisp

Other Languages: SQL, HTML, CSS, SVG, XML, JSON, Markdown

Web Frameworks: React, Svelte, AngularJS, Vue, Django, JQuery, Bootstrap

Tools: Vim, Git, GitHub, Visual Studio, VSCode, Docker, MySQL, VirtualBox/VMWare Interests: AI and Machine Learning, Full-Stack Web Development, Game Development

### Relevant Experiences

### More on LinkedIn

#### Inclusive Media Design Centre WebMoti Developer

Part-Time

 $Toronto\ Metropolitan\ University,\ Canada$ 

 $September\ 2023$  - Present

- Building and upgrading components for the WebMoti system's Raspberry Pi robot stand-in for neuro-diverse students joining classes remotely
- Developing a React JS video conferencing web app using Twilio API for real-time virtual connection between remote students and in-person classroom
- Integrating remote control interface for the robot into the web app enabling physical classroom interactions via the robot, such as hand raising
- Conducting formative and summative usability tests on the web app to expose bugs and ensure intuitive design and accessible user experience for both students and instructor
- Collaborating with development team using GitHub and Git version control systems for seamless code integration
- Researching technology, software and libraries to continuously evolve the WebMoti system

## Python Instructor

Part-Time

Kodland, UK

October 2021 - October 2022

- Instructed over 150 students of varying skill levels in Python programming language with a 100% passing rate
- Delivered lessons in digestible format based on the skill level of the students
- Evaluated student projects through code reviewing and debugging in a timely and effective manner
- Analyzed students' data structures and algorithms to provide detailed feedback for optimizing code performance
- Performed troubleshooting for virtual meetings and the Kodland IDE to ensure the smooth delivery of lessons
- Engaged parents in discussions regarding performance feedback on their children and their concerns

Other Experiences More on LinkedIn

# Student Learning Center Senior Specialist

Part-Time

Toronto Metropolitan University, Canada

August 2023 - Present

- Received Employee of the Month in September 2023 for embodying curiosity and dedication, enriching team dynamics and demonstrating crisis management in the workplace
- Pitched a financially feasible solution that won the Student Life and Learning Support Divine Design Thinking hackathon addressing the lack of campus resource awareness among students
- Produced a short series, played at Staff Winter Gathering, by directing the scripting, casting, filming and editing
- Leading informative tours of the Student Learning Center to stakeholders and prospective or incoming students
- Training new recruits by imparting knowledge and expertise to ensure proper conduct of responsibilities

## Student Learning Center Specialist

Part-Time

Toronto Metropolitan University, Canada

January 2023 - August 2023

- Ensuring customer satisfaction by asking guided questions to identify the needs of patrons and addressing them
- Assisting with preparation, setup and tear down of events including the tracking of equipment lent out
- Roaming the building to establish staff presence and ensure all building etiquette and regulations are respected
- Monitoring and reporting security or maintenance issues on work site and minimizing any risk to the community
- Collecting and maintaining statistical data relevant in making critical operational decisions

## Concierge and Security Guard

Part-Time

The Forest Hill Group, Canada

September 2022 - February 2023

- Conducted thorough patrols of the premises to maintain the safety and security of the residents
- Enforced access control throughout the site by securing all access points and granting entry to authorised people
- Responded promptly to emergency situations and adhered to established protocols to ensure the safety of residents
- Summarised daily activities during shifts and wrote detailed special occurrence reports following security incidents
- Reviewed pass-on logs and important announcements to carefully plan and prioritize tasks
- · Logged all incoming parcels and released to recipients after verifying their identities

Projects More on Github

Chat App

React, TupeScript, JavaScript, HTML, CSS

- Enabled real-time, bidirectional and low-latency messaging between multiple users using Socket.IO
- Improved app performance by routing reusable React JS components into a Single Page Application
- Developed a robust and scalable back-end server architecture using Node.js and Express
- Designed responsive and mobile-friendly components using flexboxes and media queries
- Utilized Cloudflare's CDN, caching, DDoS protection and SSL/TLS certificates for high performance and security
- Deployed app with CapRover and hosted publicly on an Ubuntu system using Oracle Cloud Server

### Natural Language Query Processor

ECLiPSE Prolog

- Parsed noun phrase queries, about a hypothetical chain of electronics stores, through a linguistic NLU system
- Built the database using atomic propositions in a Prolog knowledge base
- Leveraged Prolog back-chaining for results retrieval from knowledge base using grammar and lexicon rules

#### Online Shopping and Delivery Web Application

PHP, JavaScript, SQL, CSS

- Designed database in a Boyce-Codd Normal Form relation schema and implemented using MySQLi
- Created dynamic webpages through back-end PHP scripts, JQuery and JavaScript HTML DOM manipulation
- Integrated asynchronous connection to Google Maps Platform APIs for generating and displaying delivery routes
- Enforced app security by validating form submissions, using domain restricted API keys, storing salt encoded MD5 hashing or aes-256-cbc encryption of sensitive information, requiring user authentication and authorization etc

#### Routing Algorithms Visualizer

JavaScript, HTML, CSS

- Implemented network building and rendering on browser with a custom graph class and Cytoscape.js library
- Applied Dijkstra's and Bellman-Ford Algorithms to calculate shortest paths for routing between network devices
- Enhanced GUI performance with asynchronous event callbacks using JavaScript Event-Driven programming

Snake Game Python

- · Abstracted the PyGame library using custom framework for handling game entities and events
- Developed game logic to be scalable following modern software engineering standards