

# Carl Maalouli

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## EDUCATION

### UNIVERSITY OF TORONTO

St. George Campus  
Toronto, ON, Canada

### BASC IN ECE - ELECTRICAL & COMPUTER ENGINEERING

FOCUS IN COMPUTER ENGINEERING

MINOR IN ARTIFICIAL INTELLIGENCE

Graduation: June 2024

### RELEVANT COURSEWORK

Algorithms and Data Structures

Operating Systems

Software Engineering

Software Communication and Design

Computer Networks /  
Internetworking

Machine Learning / Artificial Intelligence

Probabilistic Reasoning

Digital Systems/Electronics

Computer Hardware and Architecture

Engineering Leadership

Computer Security

## SKILLS

### TECHNICAL SKILLS

C/C++/C# • Python •  
SQL/NoSQL Databases • Java  
• JavaScript • ASP.NET •  
Blazor • MVC • Azure Cloud  
Services • DevOps •  
Front/Back-end Software  
Development • Source Control  
(Git) • AI/ML • Computer  
Hardware / Architecture •  
Information Technology • ARM  
Architecture / Assembly •  
Verilog • Linux/Unix Scripting •  
Xamarin.Forms • MATLAB •  
Intel Quartus Prime

### SOFT SKILLS

Languages:

English • French • Arabic

Other:

Teamwork • Public Speaking •  
Communication • Software  
Communication • Leadership •  
Adaptability • Problem Solving  
• Decision-Making • Time  
Management

## WORK & UNIVERSITY EXPERIENCE

### ENVIRONMENT AND CLIMATE CHANGE CANADA | .NET APPLICATIONS DEVELOPER

May 2022 - August 2023 | Environment and Climate Change Canada - Downsview, Toronto, CA

- Worked on a greenfield project to explore the development of **cloud based applications** at ECCC: implement new features, fix bugs, create tests, update documentation, and manage databases.
- Supported a couple of legacy applications: updates and bug fixes.
- Cooperated with other students at ECCC on the development of an **internal tracking and management tool** for ECCC applications.

### APPLIED FUNDAMENTALS OF MACHINE LEARNING | UNIVERSITY PROJECT - APS360

Jan 2022 - April 2022 | UofT

- Designed and developed a powerful **object detection machine learning model**
- Applied the model in a system designed to keep count of the number of people in a room through a video feed, useful for enforcing in-store capacity limits during Covid-19.

### OPERATING SYSTEMS | UNIVERSITY PROJECT - ECE344

Sep 2021 - December 2021 | UofT

- Implemented part of an operating system
- Worked with operating system structures, concurrency, synchronization, deadlock, CPU scheduling, memory management, and file systems.

### WHAT A BAGEL | STAFF

Jun 2021 - Sep 2021 | Toronto, CA

- Managed online app orders, provided customer service, and worked as a sandwich/coffee bar staff member.

### ARM PROCESSOR OPEN SOFTWARE | UNIVERSITY PROJECT - ECE243

Mar 2021 - Apr 2021 | UofT

- Created a version of the game "Breakout" using C and Assembly Language for the ARM processor, using CPULator as the development environment.

### SOFTWARE COMMUNICATION & DESIGN | UNIVERSITY PROJECT - ECE297

Jan 2021 - Apr 2021 | UofT

- Collaborated with a team of three engineering students to develop an interactive **city mapping software** for Linux/Unix using C++.
- Implemented **algorithms** for efficient path finding: **Dijkstra's**, **A\*** Heuristic, **Multi-Start**.

### CLIENT COMMUNICATION & SOFTWARE DESIGN | UNIVERSITY PROJECT - ESPII

Jan 2020 - Apr 2020 | UofT

- Worked in a team of six engineering students to design a software solution for classroom group formation and seat assignment, with direct communication and input from the client (Professor Chris Bouwmeester - UofT).

## EXTRACURRICULARS AND VOLUNTEER WORK

### ENFANTS DE LUMIERE | FREE FOOD MARKET FOR FAMILIES IN NEED

Sep 2018 - Jun 2019 | Beirut, Lebanon

Assisted with inventory management and distribution to registered families

### MODEL UNITED NATIONS | DIPLOMACY AWARD

Sep 2016 - Jun 2017 | Lebanese American University

- Represented Germany in a **World Trade Organization's** conference and received the **Diplomacy Award** for displaying proper diplomacy and excellent communication skills during debates and negotiations.