

Michael Elias

✉ mhelias@uwaterloo.ca
☎ 226-338-6193

EXPERIENCE

Security Developer

ISARA Corporation - Integration Team

Jan - May 2019

Waterloo, ON

- Designed and implemented a platform independent build cycle for ISARA's quantum-safe OpenSSL connector using Jenkins, CMake, and Python
- Dockerized tests and customer demos for ISARA's quantum-safe OpenSSL connector

Software Engineering

Nuance Communications

Sept - Dec 2017, May - Aug 2018

Waterloo, ON

- Developed and designed print management software, creating RESTful API's and internal communication protocols in an Agile team environment
- Used Chef automation alongside Ruby and PowerShell scripting to automate the creation and implementation of internal servers and virtual machines
- Refactored legacy code to improve security and efficiency of embedded solutions, and emulate modern software models
- Created unit tests using NUnit and Rhino Mocks
- Fixed UI and threading issues in C# WPF applications

Software Engineering

Engineering IDEAs Lab

Jan - May 2017

Waterloo, ON

- Designed and built multiple projects using Arduino micro-controller, implementing Wi-Fi and Bluetooth remote control

PERSONAL PROJECTS

Musical Agency Backend Platform (NodeJS, Angular, GCP)

Designed and implemented a RESTful API using NodeJS to serve data from Google Datastore. Created an Angular application which consumed this API to present the data to the user. Deployed applications using a micro-service architecture with Google Cloud.

Smart Dots (Python)

Developed an application where a population with randomly generated paths learn to reach their goal using a genetic algorithm and random mutation.

Voice Recognition Application (C# .NET)

Created voice recognition application to control personal computer through speech.

SKILLS

Languages:

C++, C#, C, Python, JavaScript, PowerShell, HTML, CSS, TypeScript

Frameworks & Libraries:

Angular, NodeJS, Express, Material

Databases:

Google Datastore, MySQL

Tools:

Git, Jenkins, Docker, Chef Automation, Google Cloud Platform (GCP), Amazon Web Services (AWS)

EDUCATION

University of Waterloo

3A - Systems Design Engineering

Expected Grad. April 2021

COURSEWORK

Digital Systems

Digital Computation

Data Structures & Algorithms

Object-Oriented Programming

AWS Practitioners Crash Course

INTERESTS

Volunteer at Sofar Sounds

RCM Grade 8 piano

Percussionist in national award-winning Concert and Jazz bands

Rugby, football, hockey, curling, ultimate frisbee, water skiing

Interior camping, hiking

05.18.2019