

# George Girgis

+613-879-3311

[georgegirgis@cmail.carleton.ca](mailto:georgegirgis@cmail.carleton.ca)

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[george-girgis](#)

## Education

### Carleton University

*Bachelor of Computer Science: Computer and Internet Security Stream*

*Concentration: Co-op program*

2019 – 2024

Ottawa, ON

## Highlight of Qualifications

- > Technical languages: C++, C, Java, JavaScript, Python and SQLite
- > Sec & Open Src (IDS, IPS) Tools: Snort, VirusTotal Enterprise, Virus Vault/Threat Intelligence Lab
- > Programming paradigm: OOP (Polymorphism, Inheritance, and Encapsulation)
- > Data Engineering & Cloud: AZURE, ARO/OCP (PaaS/On-Prem), Knative, PostgreSQL, S2I
- > Framework & Libraries: Angular, Apache Kafka, Bootstrap, Flask, Node.js, PyNaCl, Qt, Quarkus, Tink
- > Analytics & Project Mgmt: Agile/Retro/Scrum (Microsoft Teams, Jira, Confluence), Excel, Git, JFrog, Maven

## Work Experience

### **Malware Research Assistant (full time) at Nokia, Ottawa ON**

Jan 2023 - Jan 2024

- > Developed 50+ signatures for emerging threat malware through research and analysis of 500+ samples using Nokia's Virus Vault/Threat Intelligence Lab
- > Conducted dynamic and static analysis on malware samples using sandbox, Snort, and Wireshark to develop signatures that would detect up to 1000 malware samples
- > Verified 50+ signatures for malware detection through passive analysis, ensuring accuracy and ongoing effectiveness with their Command and Control (C&C) infrastructure
- > Conducted network impact analysis on activated signatures to measure malware network activity metrics. Validated Command and Control infrastructure to ensure successful analysis
- > Optimized ET Pro signatures using Snort and IDS before pushing them via Virus Vault/Threat Intelligence Lab

### **IT Programmer Analyst (full time) at CRA, Ottawa ON**

Sep 2021 - Apr 2022

- > Documented ePayroll Simulation Environment to explain the user's interface experience of the Azure Red Hat OpenShift (ARO) and OpenShift Container Platform (OCP) environments
- > Designed and uploaded the front-end of the Event Driven Architecture (EDA) ePayroll PoC Project and uploaded it to Gitea
- > Created a Virtual Machine (VM) on AZURE ePayroll using Command Line Interface (CLI) and provided documentation
- > Redeployed all Knative services in the ARO cluster using serverless to compare it to regular microservices deployment

### **Sales Associate (part time) at RW & Co, Ottawa, ON**

Jan 2020 - Aug 2021

- > Greeted customers, offered assistance and informed them about latest store promotions
- > Helped customers by actively engaging in discussions about their needs and products that fit them

### **Compulite Inc (Co-op program), Ottawa, ON**

Feb - Jul 2019

- > Managed to set up clients' computers and workstations off site with great efficiency
- > Organized and managed inventory stocks
- > Installed windows 10 as well as any missing software programs on clients' computers

### **Intern at Nokia (Future Tech Program), Ottawa, ON**

Jul - Aug 2018

- > Devised and documented 15 different platform sizing models to greatly simplify the created customer proposals
- > Upgraded complex Big Data and Analytic product meeting deadlines
- > Researched various technologies to meet currently unsatisfied market demands

### **Digitera Marketing (Co-op program), Ottawa, ON**

Feb - Jun 2018

- > Created basic apps like calculator and food menus using Android Studio
- > Revamped the old version of the night club disco app using Android Studio
- > Added photo-shopped background color designs to the night club disco app

## **Projects**

### **Use of Cryptographic Libraries**

Nov 2022

- > Used Tink and PyNaCl via Python to implement each encryption/decryption method, including hybrid encryption

### **SQLite Grades Web Interface Database**

Apr 2022

- > Created a database to store students' grades, used Python Flask to implement CRUD (Create, Update, Remove, Delete) operations on the web-interface and sessions to keep track of logged in/registered accounts

### **Website Development & Design**

Jan 2022

- > Created and designed a website using HyperText Markup Language (HTML), JavaScript (JS), Bootstrap and Cascade Style Sheets (CSS). Additionally, used Adobe Photo-shop to add animated images on the website

### **AutoPark Inventory**

Jul 2020

- > Completed an auto park assignment in Java using Object-Oriented Programming

### **Minesweeper game**

Mar 2020

- > Programmed a minesweeper text-based version game using Python. Implemented tools such as functions, nested and regular for loops, print statements, conditional statements, and recursion