# Nguyen-Hanh Nong

# **Availability**

• Available for 4, 8, or 12 months beginning September 2024

• Estimated Graduation Date: April 2026

# **Technical Skills**

**Programming Languages**: Python, C#, C, C++, Java, JavaScript, TypeScript, HTML/CSS, TCL **Frameworks and Libraries**: Angular, Playwright, React, NextJS, Express.js, Django, Node.js, Electron

Developer Tools: Git, GitHub, GitLab, Postman, Docker, Apache Maven, Swagger

Databases: SQL, MSSQL, MongoDB, SQLite

Operating Systems: Windows, Ubuntu (Linux), Arch (Linux)

# **Experience**

# **Display Software Engineer Intern**

May 2024 - August 2024

Qualcomm

Toronto. ON

- Lead development of new front-end for a color calibration tool using Typescript and React to support 500+ clients.
- Created a middleware layer using **C**# to translate **C**++ libraries to **ASP.NET APIs** to communicate with the front end, resulting in a **50% latency reduction**.
- Conducted API testing using **Swagger**, ensuring reliable functionality and a seamless user experience for clients.

# Software Developer Intern

September 2023 - December 2023

Royal Canadian Mountain Police

Ottawa. ON

- Developed 50+ end-to-end (E2E) tests using **Typescript and Playwright for C# and Angular** web applications, increasing test coverage by 60%.
- Integrated E2E tests with GitLab CI/CD pipeline, allowing for automated testing.
- Designed **SQL** scripts for **Microsoft SQL** Server to automatically seed database for **CI/CD** pipeline integration, resulting in automated database resetting.
- Implemented bug fixes in **Angular and TypeScript** by adding run-time error checking to **Angular observables**, augmenting application reliability.

#### **Software Developer Intern**

May 2023 - August 2023

Nokia

Ottawa. ON

- Spearheaded development of **Python** packet analyzing tool for 3+ routers, achieving a **25% decrease in software bugs** by analyzing packet frame data integrity.
- Improved networking and encryption reliability in Nokia routers by creating **Regression, Sanity, and Integration** tests to catch development bugs.
- Streamlined encryption and security tests by porting them from TCL to Python using PyTest, reducing lines of code by 50% and enhancing test efficiency and readability.
- Modified **C** and **C++** embedded code in **Linux** to allow encrypted communication between routers, allowing for greater flexibility in connectivity options.

# **Projects**

#### Pokemon Server | C

- Improved Pokemon data management by developing a **C application** that implements a **client-server model**, enabling clients to request a list of Pokemon of varying types and save them to their local desktop in text files.
- Increased the maximum amount of clients handled by **75%** by utilizing **mutexes and other synchronization** mechanisms to ensure the correctness of data accessed and modified by multiple threads.

## Library Management Application | C++

- Improved library management by **developing a C++ application** to manage and sort existing libraries.
- Ensured application reliability by writing unit and integration tests, resulting in a 20% decrease in bugs.

## League Champion Discord Bot | Java, Apache Maven, Orianna

- Developed a Java application to improve user experience by allowing a random selection of items, roles, and champions for League of Legends matches.
- Reduced command execution time by 30% by implementing caching mechanisms, resulting in faster and more reliable bot performance.

### Education

**Carleton University** 

September 2021 - April 2026

Bachelor of Computer Science, Artificial Intelligence and Machine Learning Stream

Ottawa, ON

• GPA: 4.0/4.0