# Khoa Xuan Nguyen







#### **EDUCATION**

#### Carleton University, Ottawa

September 2019 – May 2024

#### **Bachelor of Computer Science (Honours)**

- In-depth understanding in Discrete Structure, Web Applications, Computer System Security, and Distributed OS
- Proficient in multiple programming languages (Python, Java, C, C++, JavaScript, HTML), with confidence and experience in database management

#### **APPLIED PROJECTS**

## **Interactive Ubuntu Terminal Simulator (Personal Project)**

October 2024

- Developed a fully functional Ubuntu terminal simulator with JavaScript, HTML, and CSS, featuring a dynamic GUI and realistic command-line behavior for an intuitive user experience
- Implemented over 10 commonly used Unix commands, providing natural behavior and functionality consistent with an authentic terminal, enhancing the realism of the simulation

#### Static HTML Portfolio (Personal Project)

September 2024

- Developed a static HTML portfolio website hosted on GitHub Pages to showcase projects, professional experience, and personal background
- Customized a free HTML/CSS template to implement responsive design and interactive features, enhancing user experience with minimal modifications
- Integrated project details, skills, and contact information into a clean, structured layout for professional visibility

#### Sudoku Game/Solver (Personal Project)

- Developed 2 versions of Sudoku game with Graphical User Interface using Python and JavaScript/HTML
- Employed an advanced backtracking algorithm combined with real-life Sudoku penciling techniques to instantly solve any Sudoku board

#### **Personal Computer Builder**

Sept 2020

- Experienced in assembling computer parts to build a fully functional, bootable computer
- Self-taught skills in diagnosing and resolving computer software and hardware issues
- Meticulous and detail-oriented, focusing on both aesthetic appeal and functionality

### PROFESSIONAL EXPERIENCE

# BlackBerry QNX

*May* 2022 – *Dec* 2022

#### Command Line Tools (Co-op/Internship)

- Focused on Linux OS, Bash scripting, Python scripting, and C programming
- Tested compatibility of over 300 GNU commands and their flags in BlackBerry's QNX OS
- Enhanced and added five features to **front-end** and **back-end** of software usage tracking tool using HTML, Python, JavaScript scripting as base code
- Conducted extensive Python automation scripting, utilizing Pytest to automatically check status of over 40 QNX targets using the Paramiko SSH library
- Performed bug testing on 40 'verification' **JIRA tickets** to ensure bug fixes work correctly
- Responsible for resolving over 20 JIRA bug tickets submitted by other testers and BlackBerry's customers, utilizing advanced debugging tools such as GDB and PDB
- Developed Python log parser to extract and convert data from over 250,000 test logs on internal report server database into easily readable format

Languages: Python, Java, C, C++, BASH, Shell, HTML, CSS, JavaScript, MatLab, Lisp, SQL

Frameworks: Node.js, Qt

Tools: Pytest, TKinter, GDB/PDB, Git, SQLite, RESTful API, Linux, Windows OS, Oracle VM VirtualBox