

NORMAN BUI

+1 613-983-3217 | normanbui@cmail.carleton.ca | [linkedin.com/in/normanbui23](https://www.linkedin.com/in/normanbui23) | github.com/nbui23 | Ottawa, ON

EDUCATION

Carleton University | *Bachelor of Computer Science (Honours), 3.9/4.0 GPA (A)*

Expected May 2026

- Software Engineering Stream; Minor in Psychology
- Awards: Dean's Honours List, President's Scholars Scholarship, Chalmers Jack Mackenzie Scholarship
- Relevant Coursework: Design & Analysis of Algorithms, Discrete Structures II, Web Apps, Operating Systems, Object-Oriented Software Engineering, Statistics

EXPERIENCE

Health Canada | *Software Developer Intern - Emerging Approaches Unit*

Sep 2023 - Present

- Build a QSAR **machine learning** model with **pandas**, **NumPy**, and **scikit-learn** to predict chemical toxicity
- Use **data science** and **SciPy** to build a data analysis pipeline that analyzes features linked to estrogen activity

Department of National Defence | *Software Developer*

June 2023 - Present

- Build a bilingual chatbot with **Flask** and **GPT-3.5** to simulate conversation with a local document database
- Implement an **NLP** pipeline using **PyPDF2** and **NLTK** for semantic transformation of PDFs
- Incorporate **OpenAI** for high-dimensional embeddings, enhancing **contextual response relevance**
- Use **SQLite3** and **FAISS** for efficient storage and embedding retrieval, enabling **quick semantic text retrieval**

NAV Canada | *Software Engineer Intern - SIN Team*

May 2023 - Aug 2023

- Implemented optimized data management strategies using **C++** and **Qt Creator** to clear **60%** of unneeded files and improve automated analysis solutions by **30%** in **DataExtractor** software
- Optimized and resolved critical bugs in **IRIS** software, resulting in more stable and efficient software performance
- Automated network configurations using **PowerShell**, reducing manual efforts and increasing overall setup speed
- Consolidated data from multiple spreadsheets using **Power Query** to create comprehensive spreadsheets

Correctional Service Canada | *Software Developer Intern - VAM Team*

May 2022 - Apr 2023

- Collaborated on **C#** software solutions for web applications, improving victim services delivery
- Improved front-end through accessibility testing and **JavaScript**, **HTML**, and **Web Experience Toolkit** adjustments
- Resolved document generation errors in **Dynamics 365**, reducing software downtime

PROJECTS

Spotify Dating App | *Swift, Xcode, Firebase, Spotify API*

- Developed an **iOS** app in **Swift**, allowing users to match based on music preferences, enhancing social connections
- Incorporated **Firebase** for user management, ensuring secure authentication and efficient **CRUD** operations
- Integrated the **Spotify API**, fetching user data to tailor matches and improve profile customization

SummaryBot | *HTML/CSS, JavaScript, Python, Express, OpenAI*

- Developed a chatbot using **NLP** and **OpenAI** to achieve automated summarization
- Enhanced user experience by creating a responsive web app using **HTML/CSS**, **JavaScript**, and **Express**
- Optimized web scraping by incorporating **BeautifulSoup4**, extracting and preprocessing content from websites
- Streamlined content processing by crafting a **Python** script to manage summarization logic and API interactions

OttFoodHelp | *Java, Firebase, Google Maps API, Android Studio*

- Developed an **Android** app in **Java** to showcase food banks and enable users to add new community fridges
- Integrated a **Firebase** database for seamless **CRUD** operations for community fridges within the embedded map
- Utilized the **Google Maps API** for marker placement and fetching directions to food banks

SKILLS

Languages: Python, Java, C, C++, C#, PowerShell, SQL, JavaScript, PHP, MS Power Query

Frameworks: Flask, React, Node.js, Express, LangChain, MongoDB, SQLite3, MySQL, Firebase, Bootstrap, WET

Libraries: pandas, NumPy, matplotlib, scikit-learn, FAISS, NLTK, NLP, spaCy, OpenAI, Sentence Transformers

Development Tools: Git, Jazz, Agile Methodology, SDLC