Norman Bui

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EDUCATION

Carleton University | *Bachelor of Computer Science (Honours), **3.9/4.0 GPA (A)*** **Expected May 2026**
- Focus in Software Engineering and Minor in Psychology
- Awards: Dean's Honours List, President's Scholars Scholarship, and Henry Marshall Tory Scholarship
- Relevant Coursework: Design & Analysis of Algorithms, Discrete Structures, Web Apps, Operating Systems, Object-Oriented Software Engineering

EXPERIENCE

Health Canada | *Software Developer Intern* **Sep 2023 - Present**
- Building a QSAR toxicity model using data science and machine learning with Python, pandas, numpy, and sklearn.

Department of National Defence | *Software Developer* **June 2023 - Present**
- Built a bilingual Flask chatbot using GPT-3.5 for conveniently conversing with local document database.
- Implemented an NLP pipeline using PyPDF2 and NLTK for semantic transformation of PDFs.
- Incorporated OpenAI for high-dimensional embeddings, enhancing contextual response relevance.
- Used SQLite3 and FAISS for efficient storage and embedding retrieval, enabling quick semantic text retrieval.

NAV Canada | *Software Engineer Intern* **May 2023 - Aug 2023**
- Revamped DataExtractor software using C++, clearing 60% of unneeded files and enhancing automated analysis solutions by 30%, by implementing optimized data management strategies.
- Optimized the IRIS software using C++ and Qt, resolving critical bugs, and resulting in more stable and efficient software performance.
- Automated network configurations and setups using Power Shell, reducing manual efforts and increasing overall setup speed and accuracy.
- Consolidated data from multiple spreadsheets using PowerQuery, creating comprehensive spreadsheets.

Correctional Service Canada | *Software Developer Intern* **May 2022 - Apr 2023**
- Collaborated on C# software solutions for improved victim services delivery using Dynamics 365 and web application.
- Performed accessibility testing, enhancing usability with JavaScript and HTML modifications.
- Boosted front-end accessibility using the Web Experience Toolkit, making the platform more user-friendly and accessible for people with different needs.
- Resolved Dynamics 365 software issues, enhancing the document generation efficiency and reducing downtime.

PROJECTS

SummaryBot | *HTML/CSS, JavaScript, Python, Express, OpenAI*
- Developed a summary-generating chatbot using NLP techniques and the OpenAI API.
- Leveraged HTML, CSS, JavaScript, Python, and Express to create a responsive web-based application.
- Incorporated BeautifulSoup4 from a previous project for website scraping.
- Created Python script for handling summarization logic and OpenAI API interaction.

OttFoodHelp | *Java, Firebase, Google Maps API, Android Studio*
- Developed an Android app in Java, showcasing food banks and enabling users to introduce new community fridges.
- Utilized the Google Maps API for marker placement and fetching directions to food banks.
- Integrated a Firebase database for seamless CRUD operations for community fridges within the embedded map.

SKILLS

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