Thomas Nolasque

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Education

Carleton University Sept 2022 – Dec 2026
Bachelor of Computer Science Honors, AI & ML Stream, CO-OP, 3.96/4 GPA, Bilingual *Ottawa, ON*
President & VP Talent @ Carleton Blueprint — **Director of Technology** @ Carleton CUSEC Society

Technical Skills

Languages: C/C++, Python, Java, C#, JavaScript, TypeScript, HTML/CSS, Bash
Frameworks: React, Bootstrap, Node.js, Express.js, AngularJS, Tailwind, Vue.js, .NET Core, Spring Boot, FastAPI
Tools: Git, VS Code, MongoDB, MySQL, PostgreSQL, Linux, RESTful API, Azure, AWS Lambda, Jira, Docker

Experience

Security Automation Engineer | *Python, KQL, Azure, Defender for Endpoint & Cloud* Sept 2024 – Present
National Defence *Ottawa, ON*
- Automated **organization-wide** vulnerability management program with scalable KQL queries and Python.
- Designed a solution to map vulnerable devices to point-of-contact system admins, accelerating remediation.

Software Developer | *Typescript, Reactjs, Nodejs, Prisma* June 2024 – Sept 2024
Science Student Success Center - Carleton University *Ottawa, ON*
- Engineered a students and mentors matching platform, matching **113 students with 18 mentors** for the 2023-2024 year, integrated into SSSC's standardized process.
- Collaborated with the team to build an algorithm to optimize matches according to schedules and class needs, with a **72% matching rate**, maximizing the number of successful matches.
- Developed the platform's frontend UI animations and backend functionality for importing/exporting CSV files to enhance UX and ease of use for SSSC Staff.

Full Stack Developer | *AngularJS, Spring Boot, Oracle SQL, Bitbucket* May 2024 – August 2024
Ontario Public Service *Toronto, ON*
- Created a fullstack app served in **280 ServiceOntario locations**, for managing birth and death certificates.
- Upgraded the Java Springboot version from **2.5.1 to 3.1.0** for a codebase of over **50,000 lines of code**, leading to significant improvements in back-end startup times.
- Implemented paging for the search results using AngularJS, reducing latency from broad Oracle Database queries.

Projects

BeavarByteBuilder | *C, C++, Python, Tkinter* June 2024
- Designed a GUI solution for **610 hackers**, streamlining their hardware setup using Python and JSON.
- Automated embedded software initialization of **10+ MCUs and sensors**, for the library importing process.
- Implemented pinout checks to prevent hardware conflicts with a GUI scanning JSON files for compatible options.

Message Board | *Docker, AWS Lambda & API Gateway, PostgreSQL, Vue.js, FastAPI, Python* Feb 2024
- Created a dynamic front-end with Vue.js, enhancing user experience and interaction with the API.
- Built a robust and scalable database using PostgreSQL, improving data management for user and message data by implementing CRUD operations using an Object Relational Mapper.
- Integrated AWS Lambda & API Gateway to determine the n most frequent words within all the messages.

Hack the Valley 8, uToronto Hackathon, 1st in Georgian AI Challenge | *Python, OpenAI API* Oct 2023
- Developed and showcased methods for building models that can identify emerging entrepreneurs using Python.
- Demonstrated proofs of concept with engineered prompts for OpenAI API calls, predicting the likelihood of success of startups and analyzing the rhythm and speech content, to rank startup pitches relative to each other.
- Provided insights for identifying visionary leaders, through AI-guided text-analysis of LinkedIn profiles and research into current industry growth and stock prices within the startup's industry.

Hack the Hill, uOttawa Hackathon, 2nd in MakerCon Challenge | *C++, JavaScript, Python* March 2023
- Trained a computer vision model with OpenCV and TensorFlow to sort objects into several waste categories.
- Connected the UI and computer vision model in real-time, indicating which bin the item belonged in.
- Implemented LED lights indicating the correct bin for disposal with C++ and an Arduino.
- Provided audio feedback for the visually impaired using Python and VLC.