

# Nathan Souphanthong

✉ nsouphan@uwaterloo.ca 🌐 nathansoup.com 🔄 nathansouphanthong 📄 nathansouphanthong

## TECHNICAL SKILLS

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**Languages:** C#.NET, TypeScript, JavaScript, HTML, CSS, Java, C++, PHP, Python

**Tools:** Git, GitLab, Postman, PostgreSQL, pgAdmin Jira, Unity, MATLAB, Visual Studio, Visual Studio Code

## EXPERIENCE

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### Full Stack Developer – JaggedXY

Sept - Dec 2021 | Georgetown, ON

- Developed cookie-based login authentication, logout functionality, and corresponding user interface using **TypeScript, C# and PostgreSQL** to verify **100+ users** from Tier 1 carriers
- Spearheaded the design and implementation of compliance reporting for North American carriers, processing and outputting the results of **300,000+ emergency call records** from a **PostgreSQL** database to Excel sheets
- Designed and implemented a Microservice following **MVC architecture** used to perform cell calculations and run reports for clients, tested REST APIs using **Postman**
- Utilized **unit testing** to ensure the functionality of server to client data serialization for primitive and non-primitive data types

### Software Developer – University of Waterloo

Jan - Apr 2021 | Waterloo, ON

- Processed raw Axis Neuron motion suit data with **Blender** to be imported into the **Unity** development environment and deployed as an **AR** application through **Visual Studio** to train novice masons
- Built C# Unity scripts to compare trainee and journeyman worker motion and relay feedback through a colour map on the **Microsoft HoloLens 2** to **increase trainee skill retention by 30%**
- Developed a user interface and interactable training models using the **Microsoft Mixed Reality Toolkit**, creating a seamless augmented reality experience for masons in training

## PROJECTS

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### Break Bank – Hack The North 🔄

Jan 2021

- Used **HTML, CSS and JavaScript** to design and create a productivity application where users can customize a task list, be rewarded with break time upon task completion and regulate their break time through an integrated time bank and self-destructing tabs
- Created a login system using **PHP** to allow users to save tasks and break time for future sessions

### Assessment Assistant 🔄

Jan 2020

- Constructed a **Java** application that uses encapsulation, inheritance and polymorphism to emulate the process of test creation for teachers, allowing teachers to effectively store, generate and customize tests from imported questions through a GUI
- Implemented ITextAPI to export tests as PDFs and adhered to the SDLC to plan, design and implement an effective solution

## EDUCATION

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### University of Waterloo

Systems Design Engineering (BASc)

2020 – 2025

Waterloo, Ontario

- Relevant Courses: Data Structures and Algorithms, Digital Computation, Intro to Design
- Cumulative GPA: 3.9/4.0