

# TOBECHI DANIEL NWACHUKWU

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## Education

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### Carleton University

September 2020 – December 2024

*Computer Science Honors (Co-op), Minor in Statistics*

*Ottawa, ON*

- **CGPA: 11.0/12 (A+)**
- **Availability:** From January 2025
- **Relevant Coursework:** Data Structures, Database Systems, Design and Analysis of Algorithms, Object-Oriented Software Engineering, Operating Systems, Software Quality and Assurance

## Technical Skills

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**Languages:** C, C++, Java, JavaScript, Python, Ruby, Swift, TypeScript

**Frameworks:** ExpressJS, NextJS, Pytest, ReactJS, React Native, Spring Boot, Tailwind CSS

**Databases:** Cassandra, MongoDB, MySQL, PostgreSQL, Prisma, SQLite

**Tools/Environment:** AWS, Confluence, Docker, Git, Gitlab CI/CD, Grafana, Kubernetes Jira, Jest, JUnit, Kafka, Linux, Mocha, NGINX, NodeJS, Prometheus, Selenium, SNMP

## Work Experience

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### Searidge Technologies - Software Developer

May 2024 – August 2024

*AWS, Docker, Kafka, Kubernetes, NGINX, NodeJS, Python, React, TypeScript*

- Designed and implemented an **NPM package** for authentication using **AWS Cognito** across full stack applications, resulting in a streamlined authentication workflow, and a 30% reduction in development time
- Engaged in the development and maintenance of microservices using an **OOP design** approach, leveraging **Kafka** for real-time event streaming and monitoring, **WebSocket** for real-time bidirectional client-server communication, **SNMP** for metrics monitoring, and **AWS Cognito** for authentication, ensuring a robust, scalable and secure system architecture
- Developed and maintained **Helm Charts** for web-based microservices, ensuring efficient deployment, scalability, and management of **Kubernetes-based** services
- Implemented comprehensive integration tests for C++ and web-based microservices using **Pytest** and executed through **GitLab CI/CD** pipelines, ensuring robust code quality and reliability

### Searidge Technologies - Software Developer

May 2022 – December 2022

*Node.js, Docker, Kubernetes, Prometheus, Grafana, Mocha, Jest, GitLab CI/CD*

- Utilized **Mocha** and **Jest** to attain **85% unit test coverage** across **REST Data API** and **React** applications, and set up **CI/CD pipelines** with **Gitlab CI** for **automated** code quality checks
- Implemented a cost-effective metrics monitoring solution using **Prometheus** and **Grafana**, reducing costs on monitoring by over **80%**
- Utilized **Docker** and **Kubernetes** for efficient deployment and orchestration of **Prometheus** and **Grafana** containers, resulting in enhanced scalability and operational efficiency
- Leveraged **Helm Charts** to deploy the containers onto a **Kubernetes** cluster, enabling easy management, scalability, and portability of the monitoring infrastructure

### Carleton University - Teaching Assistant

September 2023 – Present

*JavaScript, Node.js, SQLite, Express.js*

- Leveraged experience in **HTML**, **CSS**, **JavaScript**, and **Node.js** as a teaching assistant for a second-year web development course
- Assisted students through tutorial sessions in grasping fundamental web development concepts, troubleshooting code, and fostering a collaborative learning environment

## Projects

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### Automated External Defibrillator (AED) Simulator

Tools: C++, Qt, GitHub

- Spearheaded an **Agile-driven** team to simulate an Automated External Defibrillator (AED) using **C++** and **Qt**, guiding the project from conception to execution
- Applied **Agile** methodology principles throughout the project lifecycle, ensuring adaptability, efficient task management, and successful delivery within tight deadlines
- Leveraged **C++** and **Qt** expertise to develop a fully functional AED simulation, showcasing adept software engineering skills in **object-oriented design**, development, and **testing**