J a m e s - E d w a r d   G r a y

Nanotechnology Engineering Student | University of Waterloo

Info

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- 🗒 View Online Version

EDUCATION

Nanotechnology Engineering Honours Undergraduate
UNIVERSITY OF WATERLOO

2023-2028

- University of Waterloo Merit Scholarship (2023)

SKILLS

Programming Languages: C++, Python, MATLAB, HTML, CSS, JavaScript

Software: Microsoft Office Suite, GitHub, IBM Quantum Simulator, Microsoft Visual Code, Anaconda, AutoCAD, SolidWorks, HitFilm

Technical: Circuitry, Computer Building, Soldering, Sound Engineering, Aircraft and Automotive Maintence

Languages: English (fluent), French (Beginner), Chinese (Beginner), Japanese (Beginner)

Credentials and Awards

WHMIS 2015 Certification, Aircraft Maintenance Engineering Course (AATC-AM) Graduation Certificate, Cadet 6 Years of Service Medal, Grade 8 Royal Conservatory of Music First Class Honours with Distinction, Chief Scouter's Award

EXPERIENCE

Quantum Algorithms Research Student

UNIVERSITY OF WATERLOO / Faculty of Engineering || Waterloo, ON | JAN - APR 2025

Focused on exploring quantum algorithms for solving ordinary differential equations (ODEs) using IBM's Qiskit software platform. This role involved applying quantum computing principles to develop and implement innovative solutions for ODE problems, contributing to advancing the field of computational physics and engineering.

- Hands on learning with quantum ion-trap hardware.
- Collaborated to create Variational Quantum Linear Solvers (VQLS) using Qiskit.
- Hosted presentations on top research papers, discussing latest advancements in quantum computing theory.

Website Coordinator & Designer

GRAY & ASSOCIATES || Orangeville, ON | JUN - AUG 2024

Built and designed an interactive healthcare information website for: booking appointments, advertisement of products and services, and booking one-on-one constultations. My job was to lead and design the project using approved idea maps and wireframes.

- Exceeded employer expectations in performance and product standards.
- Achieved a VERY GOOD standing co-op rating.
- Coded the website from scratch using: HTML, CSS and JavaScript.

Marketing Representative – Home Maintenance Services

STUDENT WORKS || Waterloo-Kitchener, ON | JUN - AUG 2024

Marketed services to potential clients in student run teams. Responsible for refining cold-pitching techniques, building client rapport in high-rejection environments, and meeting lead quotas of 2-3 quotes per shift.

- Consistently challenged the standard, generating 5+ leads per shift.
- Produced a high of 15 consective leads in one shift.
- Generated 225+ leads over the season through door-to-door outreach.