GABRIELLA GERGES

Software Engineer

CONTACT

https://www.linkedin.com/in/gabriella-gerges/

ggerges019@gmail.com | +1 647 631-1967 | Halifax, NS, Canada

EDUCATION

2023-2025 (expected)
UNIVERSITY OF WESTERN ONTARIO

- Masters of Engineering Science
- Ontario Graduate Scholarship

2019-2023
UNIVERSITY OF WESTERN ONTARIO

- Bachelors of Engineering Science with Distinction (Software Engineering)

SKILLS

- Languages: JavaScript, Python, Java, Node.js, SQL, C++, Bash
- Frameworks/Tools: React.js, Next.js, Ruby on Rails, JavaFX, Firebase, GraphQL, Git, Figma, Unity, Android Studio, React Native
- Cloud & Containers: AWS, Docker
- Testing/Automation: Cypress.js, Detox, Playwright, Cucumber
- Cybersecurity: Penetration Testing, Intrusion Detection, Network Analysis, MQTT
- Machine Learning: Dataset Generation, Classification Models

AWARDS& ACCOMPLISHMENTS

- SheHacks V Winner 2021 (Wolfram Alpha Award)
- TamuHacks Winner 2021 (AA Challenge)
- Ontario Graduate Scholarship (OGS) (2023)
- Dean's Honor List (2021, 2022, 2023)

PROFILE SUMMARY

Software Engineer and Master's candidate (June 2025) with experience building full-stack, cloud-native applications using Python, Node.js, React, and AWS. Skilled in Docker containerization, API development, and automated testing (Cypress, Playwright). Passionate about cybersecurity, with hands-on experience in penetration testing, network analysis, and machine learning for intrusion detection. Proven collaborator and problem-solver, recognized through award-winning hackathon projects and teaching mentorship.

PROJECTS

Thesis Research 2023-2025

- Designed and deployed a real-world emulation of smart EV charging systems using EVerest, an open-source Linux Foundation framework.
- Simulated DoS and reconnaissance attacks on the MQTT-based EVCS management system in a controlled environment.
- Developed a custom DoS attack script and assessed its impact on system Availability using the CIA Triad framework.
- Used Kali Linux with tools like Wireshark and tcpdump for traffic sniffing, IP reconnaissance, and vulnerability analysis.
- Analyzed key communication protocols (OCPP, ISO 15118, IEC 61850) to uncover security flaws in Charge Point-to-Backend communication.
- Conducted a comparative review of proprietary vs. open-source firmware vulnerabilities in EV infrastructure.
- Built and tested ML-based Intrusion Detection Systems (IDS) to detect anomalous traffic patterns within the emulated network.
- Presented findings to technical and non-technical stakeholders, successfully defending thesis during committee evaluation and lay audience presentations.

WORK EXPERIENCE

Western University 2023-2025
Teaching Assistantship

- Led lab sessions on web development, cloud deployment (AWS), UML design, and JavaFX.
- Mentored students on full-stack tools like Java, Node.js, and React.js.
- Provided detailed code reviews and technical feedback on software projects.

Hyperpad (Startup) SUMMER '21, '22, '23
Software Engineer

- Onboarded and mentored new hires, teaching Git CLI workflows, pull request rebasing, and clean code practices.
- Collaborated with UI/UX designers to develop polished, user-focused frontend features.
- Developed backend services using GraphQL, Ruby on Rails, and Firebase to enhance performance and scalability.
- Automated grant workflows with Playwright bots, improving operational efficiency.
- Created robust E2E tests with Cypress, Detox, and Cucumber to ensure software quality.
- Delivered responsive frontend components with React.js, HTML/CSS, and Next.js in an Agile environment.