Sophia Clifton-Harting

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github.com/SophiaClifton | sophiaclifton.github.io/

Education

Concordia University Honours Bachelor of Computer Science (Co-Op)   September 2022 – Dec. 2025
Gina Cody School Women in Engineering Entrance Scholarship (2022)
Dean's List Student (Fall 2022 - Winter 2023)
Relevant Coursework

• Embedded Systems • Information Systems Security • Data Communication and Computer Networks

CGPA: 3.82

Experience

CRM Web Developer Intern, Ubisoft – Montréal, Québec   May 2024 – August 2024
(Co-Op)

- Collaborated within an **agile**, cross-functional team of designers, developers, and operations specialists to drive the timely and successful launch of campaigns and projects.
- Utilized **HTML** and **CSS** for dynamic email creation, and implemented **AMPscript** for adaptive content, addressing variables such as region, language, and player preferences to enhance personalization and engagement.
- Employed **Jira** to track open tickets and manage project progress, and used **Salesforce** for efficient email creation and campaign management.

IT Support, Concordia University – Montréal, Québec   August 2023 – Dec 2023
(Co-Op)

- Assisted clients by troubleshooting **SAP Concur** and **Ariba**.
- Researched SQL and created an automated dashboard using **SQL**, **SSMS** and **Excel** to highlight the center's performance statistics.

Skills

Programming Languages: Java, Python, C/C++, C#, Bash, PHP, SQL, JavaScript, HTML/CSS, MARIE Assembly, AMPscript, JSON, LaTeX, Erlang, Clojure
IDEs & Editors: Visual Studio, VS Code, Eclipse, Arduino, Android Studio, Git, PyCharm, vim, Unreal Engine
Databases: MySQL, MS SQL Server
Operating Systems: Kali Linux, Ubuntu, ROS2, Windows
Frameworks/Libraries: NodeJS, ReactJS
Cloud and Development Platforms: Google Cloud, Aiven, phpMyAdmin, Vercel, GitHub

Personal Projects

World Map Data Site - Backend Development Project – github.com/SophiaClifton/WorldMap
View here
August 2024 – Present **(In Progress)**

- Developed an interactive website with an SVG country map, allowing users to click on countries to view capital data such as local time and date, weather and city population.
- Utilized **Node.js** for **backend development** to fetch data from various **APIs**, including country capital, time, and weather, and integrated a MySQL database for population data. The frontend was crafted using **HTML** and **CSS** for a responsive design.
- Implemented and administered a **MySQL database** on **Aiven**. Established and configured the database via terminal connection to my personal Aiven account, ensuring seamless data retrieval and manipulation.
- Deployed the **Node.js** application using **Vercel**, ensuring scalable, free and efficient hosting. This deployment allows the website to be easily accessible online, enabling real-time data fetching, web access, and user interaction, thereby mainstreaming my application.

Portfolio Website – sophiaclifton.github.io/

- A portfolio website coded using **HTML**, **CSS**, and **JavaScript** showcasing my art, games, and competitions.
- Involves a dynamic layout and multiple functionalities that allow for smooth navigation through the pages.

Hackathons & Competitions

XTREME Programming 2nd place Winner, Concordia ENGWEEK – Montréal, Québec   March 2024

- Used knowledge of **data structures and algorithms** to efficiently implement challenge requirements.
- Solution available at: github.com/SophiaClifton/XTREME-Programming-Competition

CS Games, Ecole de Technologie Supérieure – Montréal, Québec   March 2024

- IOT challenge: Used **Kali-Linux** and **Ghidra** to reverse engineer the software on a **Raspberry Pi**.
- Art Forgery Challenge: Replicated **HTML** pages in quick, successive rounds.

AtHacks CTF, Hexploit Alliance – Montréal, Québec   March 2024

- Placed **19th** out of 102 teams participating in the capture-the-flag cybersecurity challenges.
- Penetration testing web applications and APIs using **Nmap, Metasploit, Burp Suite, and fuff / fuzzing.**
- Reverse engineered applications using **Ghidra**, **gdb**, and **Apktool.**

ConUHacks VIII - Behavior Interactive Winner, ConUHacks VIII – Montréal, Québec   January 2024
View here

- Developed a mathematical model that predicts queue times in Dead by Daylight by considering factors such as time, region, platform, party size, probabilities of different regions queuing solo vs partied, killer:survivor ratios, and rank diversity.
- Developed a comprehensive player database to support a mathematical model predicting queue times in Dead by Daylight. The database included values for region, time, party-size, rank and player role.
- Used **Unity** and **C#** to re-imagine a Dead by Daylight lobby, and integrated the created mathematical model and player database to visualize data in a 3D and interactive way, and to predict queues time dynamically using the database entries.

Other GameJam Experiences

Ubisoft Gamelabs 2024, Fall 2023 Concordia Game Jam, Ubisoft Creative Jam Fall 2023, 2023 New Year's Game Jam by Gx.Games

Other CTF Experiences

Northsec 2024, ULCTF 2024, JFFI CTF Competition 2024

Professional Associations

Marketing Director, Software Engineering and Computer Science Society (SCS)   April. 2023 – Present

- This position involves weekly team meetings where team members discuss marketing strategies and content creation for future events.
- Working seamlessly to promote SCS events, and have seen great results with events such as Wine and Cheese in which tickets were fully sold out.