Gabriel Castelo

PROFILE

✔ Bachelor's Degree in Computer Science with a minor in Electroacoustic Studies – Concordia University - 2022
✔ Over 3 years of experience as a Freelance Consultant and Full-Stack Web Developer
✔ Fluent in English, French and Spanish
✔ Technical skills: Cybersecurity Penetration Testing Methodologies, Programming, Web Design, Documentation, Data Analysis, Digital Signal Processing, knowledge of various Software Development Lifecycle Methodologies
✔ Soft skills: Self-Driven, Adaptability, Time-Management, Creative Problem Solver, Attention to Detail, Good Team-worker, Good Facilitator, Desire to learn new skills

EDUCATION

Bachelor's of Computer Science in Computer Applications with minor in Electroacoustic Studies   **2022**
Concordia University, Montreal, Quebec
GPA : 3.3/4.33
- Two time recipient of the 'Bourses d'excellence en sciences de l'informatique, en génie informatique et de la construction des ordinateurs et en génie électrique, électronique et des communications' bursary.

DEC in Social Sciences & Mathematics   **2018**
John Abbott College, Sainte-Anne-de-Bellevue, Montreal, Quebec
- Recipient of the Certificate in Women's Studies and Gender Relations.
- Recipient of the Certificate highlighting excellence in mathematics (top 5%).

WORK EXPERIENCE

Job Title : Freelance Webmaster   **May/2023 to Present**
Neon Events Inc. + Partners, Montreal
- Managing various web services such as websites, domains, DNS records, Google Workspaces, etc.
- Performing various web-related tasks such as data migrations, domain transfers, development and deployment of websites, etc.
- Responding to security/functional disruptions.
- Managing user groups, user data, network segmentation, security system, etc.

Job Title : Independent Cybersecurity Researcher   **July/2022 to Present**
N/A, Montreal
- Performing cybersecurity audits on websites/web applications according to the rules of engagement and scope of various organizations' vulnerability disclosure and/or bug bounty programs (see https://bugcrowd.com/programs).
- Gathering open-source intelligence (OSINT) and using various reconnaissance tools such as Shodan and Nmap.
- Writing custom scripts and programs for vulnerability scanning automation.
- Using Burp Suite and OWASP Zap for data collection and analysis.
- Writing and submitting reports describing the found security vulnerabilities such as RCE, SQL Injection and XSS vulnerabilities.
- Developing proof of concepts recreating exploits for found security vulnerabilities.
- Suggesting fixes and patches for security vulnerabilities.

Job Title : Resident Consultant (Temporary Contract)   **May/2023 to August/2023**
District 3 Innovation Hub, Montreal
- Consulting for various organizations such as Next-Generation Cities Institute, The Secretariat of the Convention on Biological Diversity (SCBD) at the United Nations, Independent Artists, New Harvest, and District 3 to solve various problems in data science, data representation, risk assessment/horizon scanning, etc. for The Alan Shepard Summer Consultancy Residency Program.
- Managing a team of consultants.
- Learning and applying various concepts in team dynamics, public speaking, storytelling, etc. from various experts.
- Facilitating daily briefs, debriefs, meetings, post-mortems, etc.
- Conducting market research.
- Interviewing stakeholders.
- Writing reports, developing visual assets and presenting proposals.
- Developing methodologies in horizon scanning, community exposure and engagement, visual data representation, etc.

Job Title : Freelance Full-Stack Web Developer and Consultant   **January/2022 to December/2022**
Yiara Magazine, Montreal
- Creating the organization's website.
- Designing the website to adhere to the organization's brand identity and aesthetics.
- Educating the team to manage future content on the website after its initial creation and design.

Job Title : Freelance Full-Stack Web Developer and Consultant   **January/2022 to December/2022**
Léa Denieul PhD Candidate at Concordia University, Montreal
- Creating the client's serverless website.
- Designing data visualization using the D3 Javascript library for PhD Research.

Job Title : Website Developer and Web Content Manager   **January/2020 to December/2022**
Fine Arts Stories, Montreal
- Collaborated with the Coordinator Fine Arts Office of Student Relations at Concordia University in the initial design and re-designs of the website.
- Executed the design, development, and upkeep of the website and associated Instagram account and Discord Server.
- In charge of organizing, copy editing and posting submissions for the website, while assuring they abide by the submission guidelines.
- In charge of communicating and aiding artists, organizations, and other users in the use of the website.
- Assuring user data and other sensitive information is handled and stored securely.

Job Title : Freelance Full-Stack Web Developer and Consultant   **January/2021 to December/2021**
Concordia Fine Arts Student Alliance, Montreal
- Creating the organization's website.
- Designing the website to adhere to the organization's brand identity and aesthetics.
- Giving the organization's employees a tutorial on how to manage future content on the website after its initial creation and design.

Job Title : Freelance Cyber Security and Privacy Consultant   **January/2020 to January/2021**
Concordia Fine Arts Student Alliance, Montreal
- Assisted the General Coordinator of Concordia University's Fine Arts Student Alliance in creating a data

retention and privacy policy.
- Setting up a more secure system for storage of sensitive data.
- Educating the coordinators on good security practices.

Job Title : Freelance Full-Stack Web Developer and Consultant   **December/2020 to February/2021**
Tricia Middleton, Montreal
- Creating the client's personal website.
- Migrating website to a new hosting service.
- Fixing a Google Indexing issue by improving sitemap by reformatting website content for Search Engine Optimization.

Job Title : Backend Developer   **January/2019 to December/2020**
Joyn, Montreal
- Server backend development with Node.js, Postgresql and AWS.
- Conducted user feedback loops.
- Participated in planning of projects, advertising, and events.
- Beta user support via chat bots, messaging, and calls, created and deployed bug fixes.

ACADEMIC PROJECTS

Project Title : OpenTracks Concordia   **January/2022 to May/2022**
- Working within set development cycles and submitting project deliverables for a Software Engineering course.
- Designing and implementing backend GPS Data Analytics functions (using GPX data standards) for a Fitness Tracking Android Application (https://github.com/rilling/OpenTracksConcordia).
- Performing Quality Assurance testing, white box and black box testing.
- Designing UML Models, progress reports, and documentation for source code compatibility and traceability.

Project Title : Image Processing and Computer Vision Project   **September/2021 to December/2021**
- Designing and Developing a program for SIFT-feature Detection and Matching.
- Implementing a program that detects and matches distinctive image features from scale-invariant keypoints in MATLAB and Python.
- Writing a project report and presenting/demoing the project to evaluators.

Project Title : Academic Advisor Chatbot   **January/2021 to May/2021**
- Working within set development cycles and submitting project deliverables for an Intelligent Systems course.
- Mining text and scraping Gina Cody School's website for course information with Python.
- Automating the creation of knowledge graphs from the scraped data with Python, RDF and Turtle.
- Creating Vocabularies and Ontologies with FOAF (Friend of a Friend) and SKOS (Simple Knowledge Organization System) Schemas.
- Designing Knowledge Base Queries with SPARQL database containing knowledge graph data and pulling from Linked Open Data from WikiData.
- Designing and implementing a Recommender System based on data personalization, collaborative filtering and content-based recommendation for future chat bot.
- Creating intelligent agents using machine learning and deep learning, neural networks and natural

language processing to implement a chat bot that recommends classes to students of Gina Cody School of Engineering and Computer Science.

Project Title : 3D Procedurally Generated Virtual Environments   **January/2020 to May/2020**
- Working within set development cycles and submitting project deliverables for a 3D Graphics course.
- Designing and implementing a procedurally generated virtual environment in which a user can move and interact with virtual objects.
- Developing a 3D graphics engine with OpenGL and C++ for the procedural world based on built 3D models of natural objects and animals and pre-made textures.
- Developing functions for user interactions and collision detection.

Project Title : Parkr   **January/2020 to January/2020**
- Designed a smart parking system (https://github.com/WaelLoop/Parkr) for ConUHacks V Hackathon.
- Placed in the top 5 out of 128 submitted projects.
- 1st place winner of MLH's best automation hack with UiPath challenge.
- 1st place winner of DRW's best data visualization challenge.
- 1st place winner of Intact Insurance's data/statistics representation challenge.

TECHNICAL SKILLS

Programming: Java, C#, C, C++, Python, HTML, CSS, JavaScript, Assembly Language, Prolog, Clisp, Ruby, AspectJ, OpenGL, Freepascal, Prolog, Bash, PowerShell, YAML, MATLAB/Octave

Web Development: ASP.NET, XML, JSON, jQuery, D3.js, Jinja2, Flask, Angular, TypeScript, Node.js, React.Js, Bootstrap, AWS, Cargo, Squarespace, Wix, WordPress

Development Tools: Visual Studio Community and Code, Electron, Codux, Delphi, Godot, Android Studio, Eclipse, Intellij, Git, UML, Docker, VirtualBox, PyTorch, OpenGL, MAX/MSP

Databases: PostgreSQL, Apache Jena Fuseki, SPARQL

Operation Systems: : Linux OS (Ubuntu, Debian, Kali, Parrot, Arch), Microsoft Windows, Apple macOS

Office Softwares : Microsoft Office, OpenOffice, Google Office Suite, Google Workspace