Charles-Olivier Ipperciel

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About Me

- I'm a passionate developer with hands-on experience in building scalable software applications.
- I've worked in diverse environments, from open-source projects to large companies, contributing to both frontend and backend development.
- I thrive on solving complex problems and am looking forward to a full-time role where I can continue to grow and deliver impactful solutions.

Education

Université de Sherbrooke, QC Bachelor of Science in Computer Science (COOP Program)
2022 - 2025

HEC Montréal, QC Bachelor of Business Administration (2-year major)
2019 - 2021

Relevant Skills: *(Main):* Python, Java, C# *(Other): C++, React,* JavaScript, HTML/CSS, PostgreSQL, Node.
Work Tools: Git, Linux, Docker, Azure DevOps, Octopus, Datadog, CI/CD, Godot**,** Office suite.
Video Editing: Adobe Premiere Pro, Adobe Photoshop, Pixaki (Pixel art), Aseprite.
Linguistics: Fluent in both spoken and written French and English.

Professional Experience

- ***Software Developer*** ***MEDomicsLab*** ***May 2024 – Today***
  - Development of MEDomicsLab, an open-source platform for integrating AI into healthcare.
  - Enhanced existing machine learning tools and developed new features for MEDomicsLab.
  - Enhanced the platform's scalability to accommodate the increasing volume of healthcare data.
  - Implemented MongoDB as the database solution for the project.
  - Contributed to both the frontend and backend development: enhancing the UI with ReactJS and refactoring and developing new Python scripts to ensure efficient communication with the new database.
  - Full-time internship ended and transformed into a part-time job (research assistant).
  - Technologies used: **Python, MongoDB, Electron, React.js, Git.**

- ***Software Developer*** ***Sherweb*** ***August 2023 – December 2023***
  - Implemented new features and fixed bugs in the billing department. Monitoring and debugging every day.
  - Daily scrums following an agile method.

- I integrated Braintree as the new credit card processing software
- Removed the older Paysafe system from the application. This involved navigating a complex codebase in C# to successfully implement the new software.
- Technologies used: **C#, .NET, Azure DevOps, Datadog, Octopus, Git, MySQL.**

- ***Software Developer*** ***Qwatro Inc.*** ***January 2023 – May 2023***
  - Developed a new application for improved tracking of employee hours at construction sites.
  - Worked with Python to code the UI and the backend. The database I used was MongoDB.
  - Participated in the company's digital transition efforts by aiding in the purchase of an **ERP**.
  - Technologies used: **Python, MongoDB, Git.**

Personal Projects (*Explore my website to learn more about my projects*)

- ***Vitopia – Visual Simulations of Computer-Biological Entities (Ongoing 270-hour project)***
  - Development of a 2D simulated environment to observe the evolution of organisms within complex societies. This aesthetic simulation models complex agents integrating principles of ecology, reactions to external stimuli, and economic interactions.
  - The entire project will be deployed and available online on GitHub.
  - Technologies used: **C++, OpenGL, Git.**

- ***Various Game projects (Coded Kingdoms, FindThePair, Sudoku Solver, PythonCasino)***
  - *Coded Kingdoms* is a game that teaches programming through engaging gameplay. It is one of my final bachelor's projects, totaling 130 hours. All the code and the latest version of the game are available on GitHub.
  - Developed games and game solvers using various techniques and algorithms. All the code is available on my GitHub and live demos are available on my website.
  - Technologies used: **Godot, Python, JavaScript/HTML/CSS, React, Aseprite, Git.**

- ***Automation Python Scripts***
  - Collection of scripts designed to automate various tasks across different domains. Different Python libraries used to enhance efficiency and reduce manual intervention. Code on GitHub.
  - Technologies used: **Python, various Python Libraries, Git.**

- ***Application Designed for a Pediatric Research/Insulin Dosage Calculator***
  - Participated in a research conducted at Fleurimont Hospital in Sherbrooke.
  - The application allows children with chronic pain to express their emotional states on a scale of 0 to 10.
  - Application to calculate insulin dosages depending on a regimen for a first diagnostic patient of type 1 diabetes.
  - The application is hosted and deployed on Firebase.
  - Technologies used: **React, JavaScript, HTML/CSS, Firebase, Git.**

Activities/Hobbies

- Sports & activities: Hockey, Weight Training, Running, swimming, Video games, Music.