

# Charles-Olivier Ipperciel

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## EDUCATION

### Université de Sherbrooke

*Master's Degree in Computer Science, Part-Time*

Québec, Canada

Sep 2025 – Aug 2027

### Université de Sherbrooke

*Bachelor's Degree In Computer Science COOP Program*

Québec, Canada

Jan 2022 – April 2025

### HEC Montréal

*Bachelor's Degree in Business Administration, 2-Year Major*

Québec, Canada

Sep 2019 – Dec 2021

## EXPERIENCE

### Full Stack Developer

*MEDomicsLab*

May 2024 – Present

*Hybrid*

- Developed and implemented new features for MEDomicsLab, an open-source AI healthcare platform.
- Enhanced machine learning tools, improved scalability, and implemented MongoDB to handle larger datasets.
- Worked on frontend (React) and backend (Python) for better database communication.
- Full-time internship transitioned into a part-time role.
- Technologies: Python, MongoDB, React.js, Git.

### Backend Developer

*Sherweb*

Aug 2023 – Dec 2023

*Remote*

- Developed new features in the billing team, fixed bugs, and monitored/debugged software daily.
- Integrated the Braintree software for credit card processing, replacing Paysafe in a C# codebase.
- Worked in an Agile environment with daily scrums.
- Technologies: C#, .NET, Azure DevOps, Datadog, Octopus, Git, MySQL.

### Full Stack Developer

*Qwatro Inc.*

Jan 2023 – May 2023

*On-site*

- Built an app for tracking employee hours at construction sites.
- Developed UI/backend in Python with MongoDB as the database option.
- Aided in ERP selection for digital transformation.
- Technologies: Python, MongoDB, Git.

## PROJECTS

### Vitopia – Visual Simulations of Computer-Biological Entities | C++, OpenGL, Git

Ongoing

- Developing an AI 2D shader-based simulation to observe evolving organisms in complex societies.
- Models ecological behaviors, reactions to stimuli, and economic interactions.
- Project will be deployed online and available on GitHub.

### Coded Kingdom | Godot, Python, Aseprite, Git

130-Hour Project

- Designed a pixel-based game that teaches programming through interactive gameplay.
- Players must write code and execute it to advance their characters through the levels.
- This was one of my final bachelor's projects, with all code and the latest release available on GitHub.

### Insulin Dosage Calculator | React, Firebase, HTML/CSS, Git

Personal Project

- Developed an application that calculates insulin dosage for newly diagnosed type 1 diabetes patients.
- This application is used by pediatric residents to verify their written calculation results at Fleurimont Hospital.
- Hosted and deployed on Firebase.

## TECHNICAL SKILLS

**Languages:** Python, Java, C#, C++, JavaScript, HTML/CSS, SQL (PostgreSQL), MongoDB (NoSQL).

**Libraries/Frameworks:** React, Angular.

**Developer Tools:** Git, Docker, Azure DevOps, Octopus, Datadog, CI/CD, Linux, Godot, Office Suite.

**Video Editing:** Adobe Premiere Pro, Adobe Photoshop, Pixaki (Pixel Art), Aseprite.

**Linguistics:** Fluent in both spoken and written French and English.