

# Sylvain Brunet

Montréal, Canada • (+33) 7 71 21 82 01 • Driving Licence • EU Citizen  
[sylvain.brunet37@gmail.com](mailto:sylvain.brunet37@gmail.com) • <https://www.linkedin.com/in/sylvainbrunet37/>  
<https://github.com/SylvainBRUNET37> • <https://sylvainbrunet37.github.io/Portfolio/>

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## PROFILE

I am a French computer science student specializing in video game programming. I am particularly interested in C++, software architecture and optimisation. I am looking for a final-year internship of at least four months as a programmer in the video game industry.

## PROFESSIONAL EXPERIENCE

**Programming Intern** - Agileo Automation, Poitiers, France  
April 2025 - August 2025

- Developed communication gateways between industrial equipment and factory control systems
- Implemented features in C#, including unit test integration
- Used gRPC and OPC-UA in client-server applications
- Participated in code reviews and followed an agile methodology

**Programming Intern** - University of Tours, France  
May 2022 - July 2022

- Created a database and developed a C++ computation tool for data analysis
- Analyzed requirements and designed software architecture
- Automated data extraction and storage from spreadsheet files

## EDUCATION

**Master's Degree in Computer Science, Game Programming**  
University of Sherbrooke, Longueuil (QC), Canada  
2025 - 2026

**Master's Degree in Engineering, Computer Science**  
Polytech Tours, Tours, France  
2023 - 2026

## SKILLS

- Programming Languages: C++, C#, C, Java, Python, SQL, JavaScript
- Game Development: Unreal Engine, DirectX 11, HLSL
- Backend / Systems: gRPC, OPC-UA, REST API
- Tools: Git, Visual Studio, Azure DevOps, ReSharper
- Personal qualities: Autonomous, Curious, Good listener, Passionate, Organized

## LANGUES

- French: Native
- English: Professional / Technical

## PROJECTS

### (Ongoing) Game Development with Unreal Engine 5

January 2026 – May 2026

- 3D multiplayer game developed in a team of 5 programmers and 1 audio artist

### Fish Engine & Need4Fish: Custom Game Engine for an Underwater Game

October 2025 – December 2025 | <https://github.com/SylvainBRUNET37/FishEngine>

- Developed a custom C++ game engine using DirectX 11 and Jolt Physics
- Rendering pipeline, HLSL shaders, physics, ECS, asset loading, profiling

### Food Container Lending System Prototype for a Non-Profit Organization

October 2024 – March 2025 | <https://www.youtube.com/shorts/EOsnFFwecBM>

- Team project (5 members), wrote technical specifications
- Backend development in Java (Spring Boot, REST API, SQL)
- Frontend development of a mobile application using JavaScript and React Native

### Other Projects

- Developed AI algorithms in C++ for the 38-level programming challenge ([Github](#))
- Programmed a CHIP-8 emulator in C ([Github](#))
- Created a genetic algorithm in C++ for scheduling problems ([Github](#))
- Developed a graph management library in C++ ([Github](#))
- Implemented the board game Schotten Totten in C++ ([Github](#))

## INTERESTS

- Video Games: Online games, Souls-like games, and strategy games
- Reading: Clean Code, Design Patterns, Game Engine Architecture, etc.
- Conferences and events: CppCon, GDC, MIGS 2025, etc.