Ryan de Barros

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• LinkedIn: LinkedIn Profile
• GitHub: Personal GitHub

SUMMARY OF SKILLS AND QUALIFICATIONS

Operating Systems | Windows 11 • Ubuntu WSL • Windows 10

Applications | Visual Studio • PyCharm • NetBeans • VS Code • Eclipse • Neovim • Unreal Engine 5 • Blender 4 • Godot Engine 4 • Android Studio • LibreSprite • Unity

Programming | C/C++ • OpenGL/GLFW • LibIGL • Java • Python • Android • PostgreSQL • Robot Framework • GDScript • JavaFX • C# • HTML/CSS/JavaScript (node.js)

Other | GitHub • Docker • Jira • Jenkins • SVN • CodeBerg • GitLab • REST API • Typing speed of 90 wpm

Languages | English (fluent) • French (comfortable)

Soft skills | Detail-oriented • Quick learner • Creative • Adaptable • Good communicator • Organized • Punctual

EDUCATION

Bachelor of Computer Science - Co-op Institute **2023 - August 2026 (Expected)**
Concordia University, Montreal, QC
- Tier 2 Dean's List and current GPA of 3.82 (4.11/4.30)
- CS Games 2024: Participated in challenges such as *Database*, *Triathlon*, and *Gaming*.
- Relevant courses: Data Structures and Algorithms | Computer Graphics | Geometric Processing and Modelling | Introduction to Software Engineering.

DEC in Computer Science & Mathematics **2021 - 2023**
Vanier College, Saint-Laurent, QC
- Dean's List and Honour Roll Student
- R-Score of 34
- Relevant courses: Objected Oriented Programming | Program Development in a Graphical Environment.

WORK EXPERIENCE

Product Verification Co-op **September 2024 – December 2024; May 2025 – August 2025**
Ross Video, Ottawa, ON
- Developed automated tests and managed nightly runs for Ross Video's *openGear* product line (specifically *Master Control*) using *Robot Framework*, *Python*, and *Jenkins*, ensuring their quality, reliability, and efficiency.
- Built a new test automation environment for Ross Video's *softGear Streaming Gateway* product to support ongoing product verification, and contributed to its *C++ front-end development*.
- Received a recommendation from Stephane Mailloux, Senior Automation Test Developer, which is viewable on my LinkedIn profile linked at the top of this resumé.

Certified Peer Tutor **Fall 2022 - Winter 2023**
Vanier College, Saint-Laurent, QC
- Regularly peer tutored other students in math and science.
- Tutored in subjects such as Calculus 1, Calculus 2, Linear Algebra, and Mechanics.

PROJECTS

Olympian Game Engine – Ongoing Personal Project **2025**
- Currently writing a *low-level* game engine with *C++* and *OpenGL*, leveraging libraries like *GLM* and *GLFW*.

• Demonstrating experience in *graphics programming* through resource optimization and custom rendering pipelines.

GeoRepair – Term Project **2025**
Concordia University, Montreal, QC
• Developed a mesh processing application in *LibIGL/C++* for repairing mesh defects.
• Implemented abstract theory from geometry and graphics courses, including *Laplacian deformation*, *noise smoothing*, and *triangulation*.

FitoTrack Cycling Extension – Term Group Project **2025**
Concordia University, Montreal, QC
• Extended an *open-source* application using *Java* in *Android Studio* by forking its *CodeBerg* repository.
• Led a team of 6 in implementing software engineering *design patterns* and *principles*, within a larger group of 50 students working on the extension.
• Personal CodeBerg account: **https://codeberg.org/RyanDeBarros**
• Class's fork: **https://codeberg.org/COMP354Winter2025/FitoTrackCycling**

Game Development Projects **2024-2025**
Applied self-taught *game development knowledge* in the following projects:
• Marble Mania: a 3D marble game written in *Unreal Engine 5* mainly using the *Blueprints* system.
• Riseward: a 2D platformer game written in *Godot Engine 4* and submitted for GameDevTV's 2024 *Game Jam*.
• Space Raiders: a 2D spaceship shooter game written in *Godot Engine 4* and with a variety of *custom assets*.

Populations Simulation - Term Project **2023**
Vanier College, Saint-Laurent, QC
- Collaborated with a team to develop simulations modeling species evolution using *JavaFX*, *GitHub*, and *Trello*.
- Took on a leadership role in planning and coordinating project organization and time management.

AWARDS & DISTINCTIONS

Gina Cody Undergraduate Entrance Scholarship in ENCS **2023-2025**
- A yearly renewable scholarship given to a top ranked student with an R-score above 34.

Nominated for Golden Key International Honour Society **September 2024**
- An international honours organisation that offers membership to university students in the top 15%.

Gina Cody School Undergraduate Award **Fall 2023**
- An award given to top ranked students in full enrollment.

Global top 25% in Pascal, Cayley, and Fermat high school math contests **2018 - 2021**
- Participated in and received plaques (for first place) for four CEMC contests.

INTERESTS

Music	• Passion for creating music with software such as Guitar Pro and FL Studio. • Plays guitar and piano, and has played in high school band for three years.
Sports	• Played soccer for 15 years.
Math/programming	• Loves learning new fields of math and developing mathematical solutions for programming. • Loves studying new programming concepts and languages.
Puzzles	• Likes solving and making puzzles such as sudokus, word puzzles, and logic puzzles.
Miscellaneous	• Enjoys playing and developing video games. • Enjoys reading, ranging from fiction to learning math, physics, or programming. • Dabbled in a multitude of different hobbies for various lengths of time, such as chess, poetry, learning Japanese, and much more.