

# Alexandre Brochu

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## Education

2012-2015 **Bachelor degree in computer science**, *Sherbrooke University*, Sherbrooke (Quebec).

- Final GPA of 4.06
- Rendering programming
- Artificial Intelligence
- Object oriented programming
- Functional programming

2009-2012 **DEC in information technology**, *Cegep de l'Outaouais*, Gatineau (Quebec).

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## Work experience

Nov. 2019 ... **Unreal developer**, *Behaviour Interactive*, Montreal, QC.

- Working with Unreal Engine 4 game engine
- Writing game logic and tools (using both C++ and blueprints)
- Shipped game on new and recent platform (Stadia)
- Some more experience related to graphics programming
- Experience on successful game's LiveOps

Jun. 2016 **Unity developer**, *Behaviour Interactive*, Montreal, QC.

- Nov. 2019
- Working with Unity3D game engine
  - Writing game logic (AI, Animation, UI, Systems and Backend)
  - Design game logic and systems
  - Shipped games on multiple platforms (Android, iOS)
  - Some experience related to graphics programming

Jul. 2015 **Unity developer**, *Fuel Industries*, Ottawa, QC.

- Jun. 2016
- Working with Unity3D game engine
  - Creating shaders for game with higher graphic complexity
  - Writing efficient game code.
  - Working on user interface
  - Developing games on Android and iOS platforms

May 2014 **General programmer**, *Square Enix Montreal*, Montreal, QC.

- Aug. 2014
- Working with Unity3D game engine
  - Modifying the game code directly (artificial intelligence, animation, user interface)
  - Adding functionalities to the game based on specifications
  - Fixing problems identified by a team of testers
  - Developing a game on a mobile platform

Jan. 2013 **Web Developer**, *Environment Canada*, Gatineau, QC.

- Apr. 2013
- Working in an autonomous fashion
- Sept. 2013
- Developing a new version of a tool used to help productivity of other employees
- Dec. 2013
- Planning the implementation of a database
  - Writing code of a web publication tool (asp.net, MVC)
  - Helping with web server management

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## Technical skills

Operating systems	Microsoft, Linux, MacOS, Android
Languages	C++, C#, Javascript, Ruby, Python, Racket, Java
Development tools	Visual Studio, Visual Studio Code, Rider for Unreal Engine, Vim, CMake, GDB
Version systems	Git (Command line, Sourcetree, Fork), GitHub, Bitbucket, GitLab, Perforce, SVN
Game engines	Unity 3D, Unreal Engine 4, DromEd

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## Awards and recognitions

- Two different awards of excellence for the summer 2013 and winter 2015 semesters at the Sherbrooke University for a GPA of 4.3 (A+) at the end of each semesters.
- Best grade physics 536
- Best grade chemistry 584

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## Personal and university projects

- Ray tracing engine in C++
- Implementation of a reward based learning algorithm
- Solar system visualiser with OpenGL and C++
- Parallel fractal generator
- Working on personal projects to explore possibilities of popular game engines
- Creation of a game based on game mechanics observed in an existing game

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## Interests

Video games	I like playing video games for the experience in my free time but also to study what makes a game interesting
Computer	While studying, I built multiple computers for my close friends and myself.
Mathematics	Since my mathematics courses in university, I like to understand the mathematical concepts that drives rendering programming.
Music	I learned to play electric guitar by myself. Doing this helped me develop my self-education and curiosity a lot in the process.

**Bethesda**  
*Montreal (QC)*

May 2nd 2016

Dear Hiring Manager for Bethesda

I am writing to your company after viewing an advertisement for a job as a Graphics Programmer. Attached to this letter is my resume, which will provide you with further information about my work experience, interests, and education.

I completed my computer science studies recently and found a job as a mobile game developer in Ottawa. While I was studying at Sherbrooke University, I wanted to focus on computer 3D rendering courses to understand the graphic field of computer programming. I was interested in learning the technical details to implement the systems used in this domain as well as the abstract mathematical concepts that worked behind the scenes. Even today, I still enjoy learning about new graphic and rendering technologies and the maths behind it all as well.

I would be very interested in joining your team to have the opportunity to work with multiple game engine environments and to fortify my knowledge in graphics programming.

Thanks for your consideration.

Yours faithfully,

**Alexandre Brochu**

*attached: curriculum vitæ*