

Alexandre Marques Dias

3110 Denis Diderot, Laval, Québec / (514)962-4172 / amdias00@gmail.com / Languages : french, english, portuguese

Programming languages

C++: OpenGL, GLSL, LibiGL, Skia, WebAssembly, Emscripten (With **javascript**)

Python : OpenCV, Numpy, Pandas, Boto3, Dash, SkLearn, BluePy

Knowledge

Programming: Algorithms, Data Structures, Artificial Intelligence (mainly computer vision)

Graphics: WebGL OpenGL, GLSL, LibiGL, Threejs, Skia rendering engine, Shading, Real-Time Shaders, Raytracing, Path Tracing, Geometry processing, Calculus, Linear Algebra, Animation, Typography rendering

Computer Vision : OpenCV, Image processing techniques, Machine learning in computer vision

Software: Git, Github, Linux, MacOS, Windows, Amazon Web Services, Anaconda, Docker, Unity

Experience

Corel Corporation - C++ graphics R&D developer

| June 2022 - January 2023 - Full-time then part time

Employed to work on the CorelDraw graphics suite. I was tasked with developing typography technology with the skia graphics engine (vector graphics, language encoding, font encoding, glyph rendering)

Aquassist, Magnus Produits Chimiques - Python developer for chemical analysis devices

| May 2021 - August 2021 - Full-time

Internship of 4 months in Magnus's research and development branch : Aquassist. I was employed to develop innovative portable chemical analysis devices.

National Research Council Canada (NRC) - AI Developer for a conversational agent in Unity

| June 2020 - June 2021 - Part-time

Employed by the NRC to develop a conversational AI simulating varying personalities for research purposes in the criminology field.

Education

University of Montreal, - Masters of Computer Science (in computer graphics) - 2022-2024

University of Montreal, - Bachelor of Computer Science - 2019-2022

Personal Projects : <https://alexmdias.github.io/>

Other Skills : **Visual arts** : [portfolio](#)

Excellent team player, passion for learning, quick to adapt