

PABLO AREVALO ESCOBAR

pescobar24@yahoo.com • 514.709.8252

<https://github.com/Pablo-Arevalo-Escobar>

SUMMARY OF SKILLS AND QUALIFICATIONS

Operating Systems | Windows • Mac • Linux

Applications | Microsoft Office: Word, Excel, PPT • Blender • Unity

Programming | C++ (Primary Language) • Python • SQL • Java • MATLAB • PHP • JavaScript • HTML • CSS

Methodologies | Agile and Scrum, Kaizen, Iterative development

Other | Visual Studio • GitHub • 3D Modelling • YouTube

Languages | English | Spoken & Written • Spanish | Spoken & Written • French | B1

EDUCATION

Masters of Applied Computer Science

2022- 2024 (Expected)

Concordia University, Montreal, QC

- Member of the Institute for Co-operative Education
- Relevant Courses: Computer Animation, Image Processing

Bachelor of Computer Science – General Program

2018-2022

Concordia University, Montreal, QC

- Graduated with distinction
- Relevant Courses: Computer Graphics, Artificial Intelligence, Intelligent Systems, Databases

PROJECTS

C++ OpenGL – Fluid Simulation (Academic)

Fall 2022 – Ongoing

- Use of C++ and OpenGL (Solo Project)
- Lagrange approach using Smooth Particle Hydrodynamics, rendered in 2D and 3D
- Eulerian, grid-based, approach. Use of the Gauss-Seidel method. Rendered in 2D
- “Cache-aware” programming, parallelization and optimization of code

Python, SQL (Personal)

Summer/Fall 2022

- Use of Twilio and Python
- Simple chatbot, databases and scraping

SQL Covid-19 Database (Academic)

Summer 2022

- Team of five. Design and implementation of a covid-19 databased
- Focus on SQL design. Entity Relation diagrams
- Analysis of functional dependencies and use of the Boyce Codd Normal Form

C++ OpenGL – SuperHyperCube Game (Academic)

Summer 2021

- Team of five. C++ OpenGL
- Visuals, sounds, GUI, and simple game logic
- Implementation of lighting (Phong model), diffuse maps, specular maps, and shadow mapping
- Use of vertex and fragment shaders

C++ Eight Minute Legends (Academic)

Winter 2021

- Team of five. C++
- Implementation of the
- Implementation of the card, deck, and hand class.
- Work on GUI and the Model-View-Controller pattern alongside teammates

Python (sklearn) AI (Academic)

Winter 2021

- Adversarial search using alpha-beta pruning
- Depth-first, iterative-deepening, A and A* algorithms
- Use of sklearn for sentiment analysis using the naïve bayes, decision tree and best decision tree models.

Python, Apache Jena Fuseki, Rasa framework chatbot (Academic)

Winter 2022

- Knowledge graphs
- Use of Fuseki as a SPARQL server
- Design and implementation of a knowledge base in Turtle format
- Implementation of a NLP layer using the Rasa chatbot framework

Core Competencies: Adaptability to multiple work environments and languages. Ability to assess of bugs effectively due to a strong understanding of the compile-time and run-time environment of familiar languages.

WORK EXPERIENCE

Poulet Rouge

Fall 2021

Montreal, QC

- Worked as a chef, preparing all the ingredients for the day.
- Time management and establishment of an optimal preparation routine so that the necessary ingredients are produced on time during busy days

Core Competencies: decision-making, time-management

PROFESSIONAL ASSOCIATIONS

Avionics Member of

2021– 2022

Space Concordia, Montreal, Quebec

- Worked on the telemetry system using the YAMCS (Yet Another Mission Control System) framework in Java

INTERESTS

Reading

- Neuroscience and Psychology (Livewired ,Why We Sleep, Man's search for meaning , Projections)
- Sci-Fi (Dune, SevenEves, The Martian)
- Biographies (Da Vinci, Obama, Masters of Doom)
- History (Greek history and mythology, Roman history, Norwegian mythology, Bronze age collapse)

Sports: Boulderling, Tennis, and Sailing

Passions: Music (Guitar), Video Game Programming, Physics, and History