Thomas Giros

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Citizenship : Canadian and French

PROFILE

Autonomous and rigorous, proactive, always looking for new tasks to perform, strong learning ability, flexibility and professionalism.

PROFESSIONAL EXPERIENCES 2019-2020

- Analyst-Programmer for a software for the global management of public transport services (at **GIRO**). Analysis of customer needs, adapted software solution that can take from 1 day to 3 months of work depending on the difficulty of the task. My work includes various tasks, analysis and finalization of documents relating to customer requirements, development of the software solution in C++ (creation of objects, creation of GUI, modification of existing code, debugging) and in SQL for relative changes to the database. Documentation (Word, Excel) of the applied solution, and tests relating to solutions developed in parallel by my colleagues for tasks included in the current sprint (JIRA).

- **2018:** Monitor for an advanced java course, and two assembler courses at the University of Quebec in Montreal.
- **2017:** instructor for a beginner java programming course, and for an assembler course at the University of Quebec in Montreal.
- **2014 - 2017:** creation of a SENC, management and administration of the company (Record label). Publication of nine (9) albums.
- **2014 - 2021** : Self-employed in setting up/dismantling scenes and in painting.
- **2022** : Développement d'applications mobiles et auto-apprentissage

UNIVERSITY CURRICULUM 2017-2019

- Bachelor's degree in Computer Science and Software Engineering at the University of Quebec in Montreal, **graduate (gpa 3.52).**

  *Advanced Java, Assembler, modeling and analysis, agile programming (JAVA), databases (MySQL), software construction and maintenance (**C**), telecomputing, data structures and algorithms (**C++**), software design and architecture (JAVA), artificial intelligence (JAVA), 2D and 3D computer graphics (C#), computer architecture, computer security .*

- **2010-2014** : Bachelor of Arts (University of Montreal), digital music option art history.

  Computer music course in python.

COMPUTER KNOWLEDGE

- **Software**

  Vim, Microsoft Office, IntelliJ, NetBeans, Pep8, Visual Studio, Eclipse, WireShark, Packet Tracer, GitLab, Github, Blender, Unity...

- **languages**

  Good with: Java (sphinx-4, javaFX), C++ (std, juce) , C, Shell , C#, SQL, Kotlin, Dart
  Comfortable with : Haskell, Prolog, python (anaconda).
  Known : JavaScript, SQL, HTML, CSS, Perl, Ruby,

- **Operating systems** : MacOs, Linux, Windows

PROJECTS

Game of life in C

Creation of the game of life, reading of a matrix (card in text format). Evolution of the matrix by iterations. Tests with Cunit and Bats.

Creation of labyrinths in C

Creation of matrices containing the information necessary for the creation of labyrinths (walls, entrance, exit) Translation of these matrices in text and graphic format (CUnit, Cairo) Covering

tree in C++

From a set of points and vectors, returns a spanning tree using the Prim-Jarnick algorithm (std::).

TreeMap in C++

Creation of our own TreeMap data structure similar to the BTreeMap structure of the std:: library.

Generally speaking, projects written in C and C++ also contain the creation of a shell to automate testing. A Makefile to manage compilations. An unlisted C project involves the use of the Jansson library.

Engineering course

Based on a report of client requirements, drafting of an SRS.

Writing of a ConOps and an SRS from a project of which we were the creators. Design and development of use cases, use of design patterns to develop an architecture for a project whose requirements were detailed (Dungeon and Dragons game)

Roles in the teams

Three (3) projects explicitly asked us to take a role, such as As Scrum Master, I took this responsibility for one (1) project.

All the projects done at the university from the second year contain a Readme.md for the report, explanations and steps to follow of the project. Most projects are done on a version control system. The platforms chosen were GitLab and GitHub. Communications for group projects were done with sharing and discussion platforms such as Slack or Discord.

Creation of audio plugin with JUCE (2022)

Creation of a filter plugin with three filters, high pass, low pass and peak filter. Creation of a visual interface for controlling filter parameters and displaying frequencies via an FFT. With the Juce bookstore.

Voice recognition application with Sphinx-4 (2022)

Creation of a voice recognition console application with the Sphinx-4 library. Recognition of French and creation of a summary grammar in French.

Creating graphs with JavaFX (2022)

Creating a desktop application that generates graphs with vertices and edges randomly with number of vertices or graph sequence. display and animation of the graph on a window.

Creation of mobile applications with Android Studio (2022)

Creation of Spim, an application for broadcasting images via voice recognition

Creation of a portfolio website with Dart and Flutter (2022)