

Rose Dufresne

Looking for summer internship

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Education

Concordia University, Montreal, QC (2016 – present)
Majoring in Computer Science, BCompS

Relevant courses :

- Object oriented programming I, II (with Java)
- Data structures and algorithms
- Web Programming
- Computer Graphics
- Databases
- Advanced program design with C++

Minor in Game Design

Relevant courses :

- 3D digital production
- Computation Arts I
- Introduction to Game Development

Champlain College, Saint-Lambert, QC (2014 – 2016)
DEC Pure and Applied Science

Skills

Programming languages:

C++, C, Java, Python, JavaScript and SQL.

Game Design:

C++, Unity, C#, OpenGL, Processing, Blender.

Web Development:

HTML, CSS, Vue.js, PHP, JavaScript.

Tools:

Git, Bash, Powershell, Visual Studio.

Languages:

English, French.

Employment

Software Engineering Internship

(January 2020 to Present)

Matrox, Video Department

Participating in the development and maintenance of Matrox's cross-platform video software components using C++.

- Gained experience working with video software, notably their Topology Builder application which facilitates the process of video streaming or broadcasting on multiple monitors.
- Learned about H264 encoding and decoding and have added a feature to their codec that gives the ability to force IDR frames at any given moment in a video which restarts a new group of pictures (GOP).
- Writing automation test scripts using Powershell to ensure good quality of their products.

Projects

Super Shopper: Closing Time Rush

(November 2019)

download: <https://ctrl-alt-defeat.gitlab.io/supershopperctr/>

gitlab repository: <https://gitlab.com/ctrl-alt-defeat/supershopperctr/>

- Single player, top view, 3D, wacky maze-like arcade action game that has the player running around a store buying items in order to complete a shopping list
- I programmed gameplay mechanics such as grabbing items, dropping items, the inventory, the results scene and more. I designed the levels and modeled the characters, some items and level aesthetics.
- Made on Unity with C# for the backend. Used Blender for the 3D models.

ConUHacks IV, Concordia University Hackathon

(January 2019)

Won the TouchTunes API Challenge

github repository: <https://github.com/RoseDuf/thebetersong.tech>

- Created a website to analyse different trends of music choices from TouchTunes jukeboxes across the country. Focused on movie releases, deaths and anniversaries of singers and bands.
- Used Python to extract provided data from the company to convert into graphs for analysis.

PowerGrid Board Game

(Spring 2019)

github repository: <https://github.com/RoseDuf/PowerGrid>

- C++ project that authentically recreates the game PowerGrid from scratch.
- Oversaw the underlying map structure that holds the game together, the auctioning mechanic, the Observer Pattern and more.
- Model View Control Architecture was used to encourage low coupling and high cohesion.

Extracurricular Activities

Concordia Game Development (Undergraduate Club)

- Club President.
- I take care of budgeting, booking, event organization, communications and advertising.

Volunteered for Unity Conference on Developer Day

- In charge of main registration.