Rose Dufresne

Looking for fall 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 to April 2020)*
Matrox, Video Department
Participated 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.*
- *Added SDI, HD and UHD support to an app that would capture uncompressed video data for later conversion.*
- *Added a feature to their codec giving the ability to force IDR frames at any given moment in a video which restarts a new group of pictures (GOP).*
- *Wrote 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 Hackothon *(January 2019)*
Won the TouchTunes API Challenge
github repository: https://github.com/RoseDuf/thebettersong.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 executive and spokesperson.*
- *Responsibilities: budgeting, booking, event organization, animating events and providing tutorials for our members.*

Volunteered for Unity Conference on Developer Day
- *In charge of main registration.*