Keanu Natchev

514-929-6306, <u>keanu.natchev@gmail.ca</u>, github.com/keanutan English – French – Bulgarian – Spanish & German (Basic understanding)

Education

High School Studies Diploma

June 2015

Collège Jean-Eudes, Montreal, QC

College Diploma in Pure and Applied Sciences

August 2017

Dawson College, Montreal, QC

Bachelor of Software Engineering

Fall 2017 - Present

McGill University, Montreal, QC

Technical Skills

Programming Languages: Java, C, Python, CUDA, JavaScript, HTML, CSS, VHDL, ARM assembly, BASH

Tools: Git, Cucumber.js, Linux, Gradle, Spring Boot, Heroku, Maven, Travis CI

IDEs: Eclipse, Visual Studio Code, Adobe Dreamweaver

Other Software: Figma, Adobe Photoshop, Adobe Premiere Pro, MS Office Suite, Webots, LeoCAD

Work Experience

Freelance Shopify Website Template Customization

March 2021

• Worked with owner of **cimerestudio.com** to customize website by working on **CSS** and **Liquid** files.

Personal Engineering Projects

Portfolio Website (available on GitHub)

July 2021 - Ongoing

• Building a Portfolio Website using **React**.

Binary Search Tree Visualizer (available on GitHub)

December 2020

- Built a Binary Search Tree Visualizer Java Applet using VSCode.
- Implemented features such as adding/removing nodes, generating random trees, and traversal animations.

University Engineering Projects

Data Structure and Algorithm Visualization Website

September 2020 - December 2020

Software Engineering Practice (COMP 310 & ECSE 427)

- Worked in an **agile environment** using **SCRUM** (team of 8 people) to create a simple website application to visualize sorting algorithms applied to data structures with animations to demonstrate algorithms using the **React.js** framework, **Anime.js** for animations, and **GitHub** for version control.
- Worked on the **Array** and **Doubly Linked List** data structure pages of the website.

Lego EV3 Mindstorms Robot

September 2020 - December 2020

Design Principles and Methods (ECSE 211)

- Worked in a design team of 6 to develop a robot that navigated in a **Webots** virtual environment to specific locations.
- Was responsible for the hardware design development in **LeoCAD/Webots** as well as the **hardware documentation**.
- Implemented the localization class of the robot controller in **Java** and optimized **threading** between all other classes.

Event Registration System

January 2020 - April 2020

Introduction to Software Engineering (ECSE 321)

- Created a website application to register events with date and time, attending people, artists, and Google payment.
- Used UML Lab for domain modeling, Heroku for database deployment, and Travis CI for continuous integration.
- Implemented the backend using **RESTful** services, **Java Spring Boot**, and **Gradle**.
- Implemented the website's frontend with **Vue.js**, **NPM**, and **JavaScript**.

Quoridor (board game) application

September 2019 – December 2019

Model-Based Programming (ECSE 223)

- Created a Java application of the boar game of Quoridor in a team of 6 using the **model-view-controller** design pattern.
- Implemented a load screen for the user to create/select a username, start a new game, and continue an existing game.
- Implemented a playback feature to watch saved games from start to finish.
- Used **Umple** with **UML Model** for code generation, **Gherkin** for writing testing scenarios, **Cucumber** for running test suites, and **Java Swing/2D** for the development of the user interface.