

Keanu Natchev

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English – French – Bulgarian – Spanish & German (Basic understanding)

Education

High School Studies Diploma <i>Collège Jean-Eudes, Montreal, QC</i>	June 2015
College Diploma in Pure and Applied Sciences <i>Dawson College, Montreal, QC</i>	August 2017
Bachelor of Software Engineering <i>McGill University, Montreal, QC</i>	Fall 2017 - Present

Technical Skills

Programming Languages: Java, C, Python, 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 • Worked with owner of cimerestudio.com to customize website by working on CSS and Liquid files.	March 2021
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Personal Engineering Projects

Binary Search Tree Visualizer (available on GitHub) • Built a Binary Search Tree Visualizer Java Applet using VSCode . • Implemented features such as adding/removing nodes, generating random trees, and traversal animations.	December 2020
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University Engineering Projects

Data Structure and Algorithm Visualization Website <i>Software Engineering Practice (COMP 310 & ECSE 427)</i>	September 2020 - December 2020
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- 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 (stacks, queues, arrays, singly and doubly linked lists) 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 <i>Design Principles and Methods (ECSE 211)</i>	September 2020 - December 2020
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- 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 <i>Introduction to Software Engineering (ECSE 321)</i>	January 2020 – April 2020
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- Created a website application to register events with specified dates and time, attending people, performing artists, and a Google payment option.
- Used **UML Lab** for domain modeling, **Heroku** for database deployment, and **Travis CI** for continuous integration testing
- 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 <i>Model-Based Programming (ECSE 223)</i>	September 2019 – December 2019
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- Created a Java application of the board game of Quoridor in a team of 6 using the **model-view-controller** design pattern.
- Implemented a load screen where the user can create a new username or select an existing username, start a new game, or 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.