

# Keanu Natchev

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

## Education

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

## 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

<b>Freelance Shopify Website Template Customization</b>	<b>March 2021</b>
<ul style="list-style-type: none"><li>Worked with owner of <b>cimerestudio.com</b> to customize website by working on <b>CSS</b> and <b>Liquid</b> files.</li></ul>	

## Personal Engineering Projects

<b>Portfolio Website (available on <a href="#">GitHub</a>)</b>	<b>July 2021 - Ongoing</b>
<ul style="list-style-type: none"><li>Building a Portfolio Website using <b>React</b>.</li></ul>	

<b>Binary Search Tree Visualizer (available on <a href="#">GitHub</a>)</b>	<b>December 2020</b>
<ul style="list-style-type: none"><li>Built a Binary Search Tree Visualizer <b>Java Applet</b> using <b>VSCode</b>.</li><li>Implemented features such as adding/removing nodes, generating random trees, and traversal animations.</li></ul>	

## University Engineering Projects

<b>Data Structure and Algorithm Visualization Website</b>	<b>September 2020 - December 2020</b>
<i>Software Engineering Practice (COMP 310 &amp; ECSE 427)</i>	
<ul style="list-style-type: none"><li>Worked in an <b>agile environment</b> using <b>SCRUM</b> (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 <b>React.js</b> framework, <b>Anime.js</b> for animations, and <b>GitHub</b> for version control.</li><li>Worked on the <b>Array</b> and <b>Doubly Linked List</b> data structure pages of the website.</li></ul>	

<b>Lego EV3 Mindstorms Robot</b>	<b>September 2020 - December 2020</b>
<i>Design Principles and Methods (ECSE 211)</i>	
<ul style="list-style-type: none"><li>Worked in a design team of 6 to develop a robot that navigated in a <b>Webots</b> virtual environment to specific locations.</li><li>Was responsible for the hardware design development in <b>LeoCAD/Webots</b> as well as the <b>hardware documentation</b>.</li><li>Implemented the localization class of the robot controller in <b>Java</b> and optimized <b>threading</b> between all other classes.</li></ul>	

<b>Event Registration System</b>	<b>January 2020 – April 2020</b>
<i>Introduction to Software Engineering (ECSE 321)</i>	
<ul style="list-style-type: none"><li>Created a website application to register events with date and time, attending people, artists, and Google payment.</li><li>Used <b>UML Lab</b> for domain modeling, <b>Heroku</b> for database deployment, and <b>Travis CI</b> for continuous integration.</li><li>Implemented the backend using <b>RESTful</b> services, <b>Java Spring Boot</b>, and <b>Gradle</b>.</li><li>Implemented the website's frontend with <b>Vue.js</b>, <b>NPM</b>, and <b>JavaScript</b>.</li></ul>	

<b>Quoridor (board game) application</b>	<b>September 2019 – December 2019</b>
<i>Model-Based Programming (ECSE 223)</i>	
<ul style="list-style-type: none"><li>Created a Java application of the board game of Quoridor in a team of 6 using the <b>model-view-controller</b> design pattern.</li><li>Implemented a load screen for the user to create/select a username, start a new game, and continue an existing game.</li><li>Implemented a playback feature to watch saved games from start to finish.</li><li>Used <b>Umple</b> with <b>UML Model</b> for code generation, <b>Gherkin</b> for writing testing scenarios, <b>Cucumber</b> for running test suites, and <b>Java Swing/2D</b> for the development of the user interface.</li></ul>	