

# caitlin coyiuto

major in computer science, 3<sup>rd</sup> year  
**personal portfolio:** coyiutoc.github.io

## personal projects

### Personal Portfolio April 2017

- Learned CSS, HTML, Bootstrap, and JQuery to create personal website meant to showcase projects.

### Rollerball March 2017

- Took initiative to explore game development technologies by learning C# and Unity.
- Created a maze-traversal game where player collects floating cubes while avoiding collisions with enemies.

### Concentration Game December 2016-January 2017

- Designed and implemented a concentration task where player's objective is to avoid contact with moving shapes and boundary of the Java GUI.
- Utilized Swing for GUI elements and implemented mouse tracking with Robot and MouseInfo APIs. and JUnit for testing.
- Deployed applet using Java Web Start through Tomcat.

## academic technical projects

### Software Construction Fall 2016

- Completed Java implementation of an Android application designed to plot nearest Translink bus stops/route locations. Additionally displays bus arrival times by parsing JSON data.
- Used JUnit for testing.

### Data Structures Spring 2016

- Designed *PixelPlayer* game, a Java GUI that plays music depending on what the user chooses to draw on the grid interface.
- Involved in back-end development such as sound production and interfacing with the GUI.

### Computational Neuroscience Spring 2016

- Modelled the effects of neurogenesis on interference and pattern separation for proximal similar events using MATLAB.
- Utilized a simplification of a deep-learning algorithm, the Restricted Boltzmann Machine (RBM), to artificially simulate memory performance of the RBM model at different rates of neurogenesis.

### Computation for the Sciences Spring 2015

- Designed a GUI on MATLAB to assist in ear training for musical theory courses.
- Implemented algorithms for computations of chord and note permutations from scratch.

## skills

**Programming:** Java • C/C++ • C# • HTML • CSS • Bootstrap • JQuery • Javascript • Assembly

**Tools/Environment:** MATLAB • UNIX • IntelliJ • XCode • Atom • Unity • Tomcat • Java Web Start • DrJava

**Statistics:** SPSS

**Design:** Adobe Photoshop • Adobe Indesign

**Music Production:** MaxMSP • Ableton Live • Sibelius • Amadeus Pro • Audacity

**Video Production:** Adobe Premiere Pro

## education

\* **B.CS in Computer Science** 2016-2019  
 University of British Columbia, BC, Canada

\* **B.A in Neuroscience,** 2012-2016  
**Minor in Music**  
 Wellesley College, MA, USA  
 3.61/4.00 GPA, *Cum Laude*

## awards & recognitions

\* **Wellesley College Student Library Award for Independent Study** Spring 2016

\* **Inducted into Sigma Xi (International Honor Society for Scientific Research) as Associate Member** Spring 2016

\* **Wellesley College Science Center Summer Research Award** Summer 2015

## other work experience

\* **Research Assistant** 2014-2016  
 Mechanisms of Affect & Dysregulation Lab  
 Wellesley College

- Tested participants using behavioral and neurophysiological (electroencephalography [EEG]) measures.

- Helped develop EEG protocol for data analysis, and produced paper from study findings.