

# caitlin coyiuto

major in computer science, 4<sup>th</sup> year  
**personal portfolio:** [coyiutoc.github.io](https://coyiutoc.github.io)

## work experience

### Directed Study – Code Conversion Project

*May 2018 - Present*

*UBC Visual Cognition Lab*

- Leading conversion of lab's Java codebase to utilize web technologies such as Node.js, D3.js and JsPsych.
- Implemented functional POCs for foundational JND (Just Noticeable Difference) and Stevens experiments.

### SAP Jam Extensions and Platform Developer Intern

*Sept 2017-April 2018*

- Supported the introduction of bot workflow into Jam Messages by implementing OData API entities and endpoints using Ruby on Rails.
- Developed new webhooks for Jam-specific events.
- Created Jam Messages chat bots designed to provide integration with JIRA and the SAP Learning Management System.

## skills

**Programming:** Ruby • Javascript • Java • C/C++ • C# • HTML • CSS • D3.js • JsPsych • Coffeescript • Bootstrap • JQuery • Mocha • MySQL

**Tools/Environment:** Node.js • OData • Rails • MATLAB • Unix • Unity • Tomcat • Java Web Start

**Statistics:** SPSS

**Design:** Adobe Photoshop • Adobe Indesign

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

**Video Production:** Adobe Premiere Pro

## personal 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

*Dec 2016-Jan 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.
- Deployed applet using Java Web Start through Tomcat.

## 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*

## research 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.

## academic technical projects

### Relational Databases

*May 2018-June 2018*

- Implemented a calendar web application that allows users to view, add and update calendar items of differing types.
- Wrote MySQL queries for the backend, and implemented all Calendar-related pages for retrieving/organizing items using PHP, Javascript and HTML.

### 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.