# CAITLIN COYIUTO

Major in Computer Science, 3rd Year
Github Portfolio: https://coyiutoc.github.io/

## TECHNICAL SKILLS

- **Programming**: Java, C/C++, C#, HTML, CSS, Bootstrap, Javascript, Assembly
- **Tools/Environment:** MATLAB, IntelliJ, DrJava, UNIX, XCode, Tomcat, Atom, Unity, Java Web Start
- **Applications:**
  - **Design:** Adobe Photoshop, Adobe Indesign
  - **Statistics:** SPSS
  - **Music Production:** MaxMSP, Ableton Live, Sibelius, Amadeus Pro, Audacity
  - **Video Production:** Adobe Premiere Pro

## PERSONAL PROJECTS

- **Github Portfolio Website:** *April 2017*
  Learned CSS, HTML, Bootstrap, and Javascript to create personal
  website meant to showcase 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 boundary of the GUI and moving shapes.. Written in
  Java, utilizing Swing for GUI elements and JUnit for testing. Mouse tracking
  implemented with Robot and MouseInfo APIs**.** Applet deployed using Java
  Web Start through Tomcat.

## ACADEMIC TECHNICAL PROJECTS

- **Software Construction**: *Fall 2016*
  Using Java, completed 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.

- **Data Structures:** *Spring 2016*
  In a team of three, designed *PixelPlayer* game, a Java GUI that plays music
  depending on what the user chooses to draw on the grid interface. Was in charge
  of back-end development such as sound production and interfacing with the GUI.
  Utilized hashtables, linked lists, queues and array matrices for color-note association
  and storage of chord frequencies.

- **Computational Neuroscience:**                                                      *Spring 2016*
  Used MATLAB to graphically model the effects of neurogenesis on interference and pattern separation for proximal similar events. Used 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:**                                                      *Fall 2015*
  With a partner, designed a GUI on MATLAB to assist in ear training for musical theory courses. Used Ableton Live for generation of sound files, and implemented algorithm for computations of chord and note permutations from scratch.

## OTHER WORK EXPERIENCE

- **Research Assistant**:                                              Spring *2014 – Spring 2016*
  Department of Psychology, Wellesley College, MA, USA
  Mechanisms of Affect and Dysregulation Lab, Christen Deveney, Ph.D

  o Recruited, screened and tested participants using behavioral and neurophysiological (electroencephalography [EEG]) measures
  o Assisted in developing protocols for EEG data processing
  o Organized, processed, and analyzed data using SPSS
  o Presented lab findings in department poster session and seminar
  o Trained new lab assistants in EEG protocol

## EDUCATION

- **B.CS in Computer Science (Integrated Computer Science)**      *Fall 2016 – Spring 2019*
  University of British Columbia, Vancouver, BC, Canada

- **B.A in Neuroscience, Minor in Music**                                              *2012-2016*
  Wellesley College, MA, USA

  o Cumulative GPA: 3.61/4.0 – *Cum Laude*

## AWARDS & RECOGNITIONS

- **Wellesley College Student Library Award for Independent Study**      *Spring 2016*
  o For paper investigating frontal and parietal alpha EEG asymmetry profiles associated with high levels of irritability.

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

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

- **Winner of Brandeis-Wellesley Concerto Competition**                    *Fall 2015*
  - Performed as flute soloist with the Brandeis-Wellesley Orchestra

- **Co-Principal Flutist of Brandeis-Wellesley Orchestra**                    *Fall 2012*