ubc science co-op
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CAITLIN COYIUTO

Major in Computer Science, 3rd Year

TECHNICAL SKILLS

- **Programming**: Java, C/C++, HTML*, CSS*, Assembly
- **Tools/Environment:** MATLAB, IntelliJ, DrJava, UNIX, XCode, Tomcat*, Atom *currently learning
- **Applications:**
  - **Design:** Adobe Photoshop, Adobe Indesign
  - **Music Production:** MaxMSP, Ableton Live, Sibelius, Amadeus Pro, Audacity
  - **Statistics:** SPSS

PERSONAL PROJECTS

- **Concentration Game**: *Dec 2016 – Jan 2017*
  Designed and implemented a concentration task for use as a frustration manipulation in a psychophysiology lab. Displayed through a Java GUI, utilizing Swing and JUnit. 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 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 sound production and back-end development. Utilized hashtables, 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 the Restricted Boltzmann Machine to artificially simulate rates of neurogenesis and cell death in the hippocampus.

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

EDUCATION

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

- **B.A in Neuroscience, Minor in Music** *2012-2016*
  Wellesley College, MA, USA
  - Cumulative GPA: 3.61/4.0 – *Cum Laude*

AWARDS & RECOGNITIONS

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