Davis M. Catolico

408-621-0966 | dcatolico18@cmc.edu

Education

Claremont McKenna College - Claremont, CA **May 2018**

Bachelors of Arts in Computational Neuroscience, Sequence in Computer Science – GPA: 3.17/4.0

Previous Courses: Molecular Neuroscience, Linear Algebra, Calculus III with Applications to Life Sciences, Digital Electronics & Computer Engineering, Functional Anatomy & Biomechanics, Principles of Physics

Current Courses: Computational Neuroscience, Systems Neuroscience, Principles of Computer Science, Biomedical Engineering, Mathematical Biology

Technical Skills: Microsoft Office, MATLAB, C, Java, KiCad, Verilog, Drupal, Wordpress, HTML, CSS, Arduino

Lab skills: Pipettes, PCR, IHC, bacterial cultures, genetic transformation, titrations, cadaver dissection

Experience

Student Technology Assistant Team – Claremont, CA **August 2016 – Present**

Residential Technology Assistant

- Serve as primary technology help desk for 70 residents, solved and documented 50+ technology issues

Backyard Brains - Ann Arbor, Michigan **May 2016 – August 2016**

Research and Development Intern

- Engineered and programmed a brain-computer interface for fish, an Arduino-based device designed to listen to, monitor, and manipulate the bioelectric signals of weakly-electric fish
- Created an affordable research tool-kit targeted to neuroscience educators and students

Claremont McKenna Office of Public Affairs - Claremont, CA **August 2015 - Present**

Web Design Intern

- Refurbish site architecture and update web content for Claremont McKenna's official website and 7 on-campus institutions in HTML, CSS, Drupal, and Wordpress

Casa Colina Hospital and Centers for Healthcare - Pomona, CA **June 2015 – June 2016**

Clinical Research Assistant - Project Manager

- Clinically evaluated Smart Socks by Sensoria Fitness, a newly developed technology for runners
- Managed a team of 8 student researchers and physical therapists to run clinical trials
- Designed data acquisition protocol using GAITRite and Sensoria software

Activities and Awards

Varsity Basketball and Volleyball Game Management – *Statistician* **September 2016 – Present**

5C Hackathon – Advanced Section - 3rd Place **April 2016**

- *Braintense:* Designed in Rubygame, this game interfaces with electromyography (EMG) and electroencephalography (EEG) to use brain waves and muscle flexion as input. I led my team in hacking an EEG headset and building an EMG circuit to convert the body's electrical activity into digital output to control a character's movements

5C Hackathon – Best Hack for Scaling Human Connection sponsored by Airbnb **November 2015**

- 5C Dining2Know: An alternative way to view dining options at the Claremont Colleges, integrated with Instagram's API

Claremont-Mudd-Scripps Varsity Track and Field - *Jumper and Sprinter* **2014 – Present**

Presentations and Publications

MID-SURE Poster Symposium - Michigan State University **July 2016**

Neural Mechanisms of the Jamming Avoidance Response in the Weakly Electric Fish (Electric Fish Piano)

(Pending) Archives of Physical Medicine and Rehabilitation - Casa Colina Hospital **June 2016**

Evaluation of a Wearable 'Smart Socks' Gait Monitoring System for Improving Rehabilitation Outcomes