Davis M. Catolico

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Education

Claremont McKenna College - Claremont, CA   **May 2018**
Bachelors of Arts in Neural Engineering, Minor in Computer Science
Previous Courses: Molecular Neuroscience, Linear Algebra, Digital Electronics & Computer Engineering, Functional Anatomy & Biomechanics, Principles of Physics, Computational Neuroscience, Principles of Computer Science, Biomedical Engineering, Mathematical Biology
Current Courses: Cognitive Neuroscience, Data Structures, Big Data, Project Management
Technical Skills: Java, Python, C, C++, Matlab, XPPAUT, Microsoft Office, LaTex, Drupal, Wordpress, HTML, CSS, KiCad, Verilog, Arduino, Clinical Data Management
Lab skills: Cadaver dissection, pipettes, PCR, IHC, bacterial cultures, genetic transformation, titrations

Experience

Oregon Health Science University – Portland, OR   **May 2017 - August 2017**
Quantitative Bioscience and Biomedical Engineering Intern | Software Developer
- Developed software in Python using cryo-electron microscopy data to predict atomic structure under the guidance of Dr. Michael Chapman

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, MI   **May 2016 - August 2016**
Research and Development Intern
- Designed an Arduino-based device to record and manipulate bioelectric signals of weakly-electric fish
- Created a cost-effective 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 content for cmc.edu and 7 on-campus institutions in HTML, CSS, Drupal

Casa Colina Hospital and Centers for Healthcare - Pomona, CA   **June 2015 - June 2016**
Clinical Research Assistant - Project Manager
- Evaluated clinical efficacy of Smart Socks by Sensoria Fitness, a technology developed for runners
- Managed a team of 8 student researchers and physical therapists to run over 100 clinical trials

Activities and Awards

Camp Kesem Coordinator Board – *Director*   **August 2017 - Present**
CMS Varsity Sports Game Management – *Statistician*   **September 2016 - Present**
Claremont-Mudd-Scripps Varsity Track and Field - *Jumper and Sprinter*   **2014 - Present**
Camp Kesem Coordinator Board – *Treasurer*   **March 2017 - August 2017**
5C Hackathon – Advanced Section - 3rd Place   **April 2016**
- *Braintense:* Designed in Rubygame, this game interfaces with an electromyography (EMG) circuit and electroencephalography (EEG) headset to use brain waves and muscle flexion as input 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 in Claremont, integrated with Instagram's API

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