DAVIS M. CATOLICO

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EDUCATION

Claremont McKenna College - Claremont, CA   **May 2018**
Bachelor of Arts in Neural Engineering, Sequence in Computer Science
Relevant Coursework: Molecular Neuroscience, Linear Algebra, Digital Electronics & Computer Engineering, Computational Neuroscience, Biomedical Engineering, Advanced Mathematical Biology, Data Structures, Big Data, Management of Technical Enterprise, Network Science & Machine Learning, Discrete Mathematics
Technical Skills: Java, Python, C, C++, MATLAB, LaTex, Drupal, Django, Hadoop, AWS, HTML, CSS, Arduino, Git
Certifications: Data Integrity, FDA requirements, Quality Systems, Preparing for Inspections in a Regulated Industry
Lab skills: Cadaver dissection, PCR, IHC, ELISA, genetic transformation

EXPERIENCE

Alnylam Pharmaceuticals   **Aug. 2017 - Present**
Keck Graduate Institute - Bioinformatics Project Consultant
- Collaborating with graduate students and bioinformaticians on a year-long consultation assignment

Oregon Health Science University - Portland, OR   **May 2017 - Aug. 2017**
Quantitative Bioscience and Biomedical Engineering Intern
- Developed methods for real-space refinement software to refine cryo-EM maps to high resolution X-ray crystallography models under the guidance of Dr. Michael Chapman

Student Technology Assistant Team - Claremont, CA   **Aug. 2016 - Present**
Residential Technology Assistant & Lab Technology Assistant
- Serving as primary technology help desk for students, solved and documented 50+ technology issues

Backyard Brains - Ann Arbor, MI   **May 2016 - Aug. 2016**
Neuroethology Research and Development Intern
- Programmed an Arduino-based device to record and manipulate electric signals of weakly-electric fish
- Created an affordable research tool-kit marketed for neuroscience educators and students

Claremont McKenna Office of Public Affairs - Claremont, CA   **Aug. 2015 - Present**
Web Design Intern
- Refurbishing site architecture and web content for 7+ official Claremont McKenna institutions

Casa Colina Hospital and Centers for Healthcare - Pomona, CA   **Jun. 2015 - Jun. 2016**
Clinical Research Assistant - Project Manager
- Designed a clinical study to evaluate Smart Socks by Sensoria Fitness for a potential treatment program
- Managed a team of 8 student researchers and physical therapists to run 100+ clinical trials

ACTIVITIES AND AWARDS

Camp Kesem at the Claremont Colleges - *Director*   **Aug. 2017 - Present**
- Annually plan and raise $30,000+ for an empowerment camp for 30+ children whose parents have cancer

CMS Sports Information Team- *Statistician*   **Sept. 2016 - Present**

Claremont-Mudd-Scripps Varsity Track and Field - *Jumps Captain and Sprinter*   **Aug. 2014 - Present**

5C Hackathon - *3rd Place Advanced Section*   **Apr. 2016**
- *BrainTense:* A game to interface with electromyography (EMG) and electroencephalography (EEG) 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*   **Nov. 2015**
- *5C Dining2Know:* An alternative way to view Claremont's dining options integrating Instagram's API

PRESENTATIONS AND PUBLICATIONS

Pre-Health Symposium - Keck Science Institute at the Claremont Colleges   **Jul. 2017**
Computational Methods of Real-Space Refinement

MID-SURE Poster Symposium - Michigan State University   **Jul. 2016**
Neural Mechanisms of the Jamming Avoidance Response in the Weakly Electric Fish (Electric Fish Piano)

Archives of Physical Medicine and Rehabilitation - Casa Colina Hospital   **Jun. 2016**
Evaluation of a Wearable 'Smart Socks' Gait Monitoring System for Improving Rehabilitation Outcomes