

# 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 - GPA: 3.24/4.0*

**Relevant Coursework:** Molecular Neuroscience, Linear Algebra, Digital Electronics & Computer Engineering, Principles of Physics, Computational Neuroscience, Biomedical Engineering, Advanced Mathematical Biology, Advanced Data Structures, Big Data, Management of Technical Enterprise

**Technical Skills:** Java, Python, C, C++, MATLAB, LaTeX, Drupal, Wordpress, Django, Hadoop, HTML, CSS, Arduino

**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 - Team Master's Project Consultant*

- Collaborating with a team on a year-long consultation assignment to fulfill the senior thesis requirement

**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**

- Plan and fundraise for a week-long summer empowerment camp for 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** - *3<sup>rd</sup> Place Advanced Section*

**Apr. 2016**

- *BrainTense*: Created 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**

*[Article] Evaluation of a Wearable 'Smart Socks' Gait Monitoring System for Improving Rehabilitation Outcomes*