

Keaton Armentrout

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EDUCATION

Duke University

December 2016 • Durham, NC
M.S. in Biomedical Engineering
GPA: 3.76/4.00

Washington University in St. Louis

May 2015 • St. Louis, MO
B.A. in Neuroscience
Minor in Music
Alpha Delta Phi, Eliot Chapter
College Honors, Dean's List
GPA: 3.60/4.00

University College London

January – June 2014 • London, UK
Affiliate Student, Biosciences Division
Grade: Upper Second (2:1)

SKILLS

Development

Python
MATLAB
Java
HTML / CSS
Flask
Arduino / Photon

Lab Techniques

Intra- and extracellular single-unit neuron recordings
Oscilloscope and multimeter use
Breadboard / circuit construction

COURSEWORK / PROJECTS

THINC 2016 Hackathon: Third Place

- + Built a web application to reduce emergency room overcrowding

Introduction to Medical Instrumentation

- + Designed and built an Arduino-controlled, Fitbit-like activity monitor

Invention to Application

- + Developed a business plan for a medical software startup

Signal Processing & Applied Mathematics

- + Created a sign language alphabet to text transcription program in MATLAB

Human-Robot Interaction

- + Wrote MATLAB software interpreting EEG signals to control an external device

EXPERIENCE

MIGUEL NICOLELIS NEURAL ENGINEERING LAB. *Research Assistant*
September 2015 – Present • Durham, NC

- + Analyzing kinematic and neural data in a study of locomotion
- + Creating predictive models of leg motion from neural activity using MATLAB for potential application to brain-machine interfaces

WARREN GRILL NEURAL ENGINEERING LAB. *Research Assistant*
March 2016 – September 2016 • Durham, NC

- + Developed a suite of tools in Python for academic article reference, and organization
- + Built front- and back-end components using SQLAlchemy and PyQt5 for database and GUI design
- + Integrated functionality of existing article providers and managers via API calls

DUKE NEUROSCIENCE CAMP. *Instructor*
July 2016 • Durham, NC

- + Prepared lectures and led discussions on neuroscience, neuroethics, and philosophy
- + Mentored and provided support to high school students

WASHU C-TRAIN RESEARCH GROUP. *Research Assistant*
June – August 2015 • St. Louis, MO

- + Wrote custom plugins in Java for ImageJ software to automate ultrasound image processing
- + Prepared and organized organic tissue samples

THOROUGHMAN BIOMEDICAL ENGINEERING LAB. *Research Assistant*
September 2014 – January 2015 • St. Louis, MO

- + Investigated the effect of observation of tasks on motor learning through controlled human studies
- + Analyzed motor manipulation data from human reaching tasks using MATLAB
- + Collaborated with Principal Investigator and graduate students as sole undergraduate researcher

WUSAUCE SALSA DANCE TEAM. *Training Chair, Choreographer*
September 2013 – May 2015 • St. Louis, MO

- + Created and led weekly public lessons to Washington University students
- + Trained new team members in multiple dance styles for public performance and international competition
- + Choreographed and taught new team routines

WASHU DEPARTMENT OF BIOLOGY. *Teaching Assistant*
January – May 2013 • St. Louis, MO

- + Supervised two sections of 30-35 undergraduate students in a Phage Genome Annotation program