# Keaton Armentrout

keaton.armentrout@duke.edu • 314 580 0351
ksarmentrout.com

## EDUCATION

**Duke University**
Expected: 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 (College Honors)
Minor in Music
Dean's List, GPA: 3.60/4.00

**University College London**
January 2014 – June 2014 / London, UK
Affiliate Student, Division of Biosciences
Cumulative Grade: Upper Second (2:1)

## SKILLS

**Development**
MATLAB / Python / Java
HTML / CSS
Git
Arduino
ImageJ

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

## RELEVANT COURSEWORK

Signal Processing & Applied Mathematics
Biophysics of Neuroscience Tools
Introduction to Medical Instrumentation
Algorithms and Data Structures
Human-Robot Interaction
Invention to Application
Control of Movement
Laboratory of Neurophysiology
Physics of the Brain
Visual Neuroscience

## EXPERIENCE

**Warren Grill Neural Engineering Lab.** Research Assistant
March 2016 - Present / Durham, NC
- Developing a suite of tools in Python for academic article reference, organization, and collection
- Building front- and back-end components using SQLAlchemy and PyQt5 for database and GUI design
- Integrating functionality of existing article providers and managers via API calls

**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
- Vivarium certified for handling non-human primates

**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

**WU C-TRAIN Research Group.** Research Assistant
June 2015 – August 2015 / St. Louis, MO
- Wrote custom plugins in Java for ImageJ software to automate ultrasound image processing
- Prepared and organized organic tissue samples
- Presented research results in a group setting

**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

**WU 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
- Advised students on genome analysis techniques and underlying biological concepts