Keaton Armentrout

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ksarmentrout.com

EDUCATION

Duke University
December 2016 ▪ Durham, NC
M.S. in Biomedical Engineering
GPA: 3.83/4.00

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
+ Numpy, Pandas, Scikit, SQLAlchemy, PyQt5, Requests, Unittest, Nosetests

Web Development
+ HTML, CSS, Flask, React.js, Javascript

MATLAB
Java
Arduino / Photon

Lab Techniques
Oscilloscope and multimeter use
Breadboard / circuit construction

COURSEWORK / PROJECTS

THINC 2016 Hackathon: Third Place
+ Built a web application using Flask and React.js 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 lead by Duke medicine faculty

Signal Processing & Applied Mathematics
+ Created a sign language alphabet to text transcription program in MATLAB

Personal Website
+ Built personal static site using the Hugo framework and custom HTML/CSS

EXPERIENCE

TECHSTARS BOSTON. *Data Science & Tech Associate*
January 2017 – Present ▪ Boston, MA
+ Performing data analytics and software development projects for 13 early-stage startups in the Techstars Boston class
+ Porting and restructuring C# code to Python for AWS deployment and production in a supply chain startup
+ Created and deployed an automatic email notification and Google Calendar bot to help organize 350+ meetings a week across 24 teams
+ Developed a webscraping program in Python using Requests and Selenium for sales lead discovery

MIGUEL NICOLELIS NEURAL ENGINEERING LAB. *Research Assistant*
September 2015 – December 2016 ▪ Durham, NC
+ Analyzed kinematic and neural data in a study of locomotion
+ Wrote MATLAB scripts to determine phase of gait and fit multilinear regression models of neural firing rate
+ Created predictive models of leg motion from cortical neuron activity in 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 via API calls
+ Tested python code and practiced test-driven development with Nosetests

DUKE NEUROSCIENCE CAMP. *Instructor*
July 2016 ▪ Durham, NC
+ Prepared lectures and led discussions on neuroscience, neuroethics, and philosophy
+ Mentored and organized science-based activities for 28 high school students

WASHU C-TRAIN RESEARCH GROUP. *Research Assistant*
June – August 2015 ▪ St. Louis, MO
+ Wrote custom plugins in Java for ImageJ to automate ultrasound image processing

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