

## 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  
Database design  
AWS  
Flask

### Lab Techniques

Oscilloscope and multimeter use  
Breadboard / circuit construction

## COURSEWORK / PROJECTS

### MS Poster Presentation

- + “Deriving bilateral lower limb kinematics from cortical population activity during bipedal primate locomotion”
- + Duke University, Dec. 2016

### THINC 2016 Hackathon: Third Place

- + Built a web application using Flask and React.js to reduce emergency room overcrowding

### Invention to Application

- + Developed a business plan for a medical software startup lead by Duke medicine faculty

### Introduction to Medical Instrumentation

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

## EXPERIENCE

### READCOOR. *Software Engineer*

February 2018 – Present • Boston, MA

- + Created DNA probe design software using Python and Nextflow and led the development process to create front- and back-end components and deploy on AWS
- + Building a suite of tools to generate synthetic image data for algorithm benchmarking
- + Designed and implemented database architecture for biological data storage
- + Built multiple APIs using Flask and AWS infrastructure for accessing PostgreSQL databases and running containerized processes

### APEX NEURO. *Biomedical Engineer*

July 2017 – February 2018 • Boston, MA

- + Analyzed subject biometrics and subjective metrics from human studies to assess efficacy of a noninvasive nerve stimulation device
- + Refactored and extended Python codebase to generalize across multiple experiments
- + Designed backend infrastructure with PostgreSQL and Tableau visualization

### NEUROTECHX. *Editor, Writer, Organizer*

August 2017 – January 2019 • Boston, MA

- + Writer and Editor of the “New Emerging Tech” and “Machine Learning for BCIs” content for the NeuroTechEDU open education platform
- + Organized speaker events and Hack Nights around neurotechnology for NeuroTechBOS, the Boston chapter of NeuroTechX with over 750 members

### FREELANCE. *Data Scientist & Developer*

May 2017 – August 2017 • Boston, MA

- + Designed and implemented a database for data analysis in PostgreSQL and SQLAlchemy
- + Analyzed heart rate data to assess efficacy of a gaming platform in helping players regulate emotion across weeks
- + Built automation pipeline for administrative tasks handling over 4000 users within a caregiver educational platform

### TECHSTARS BOSTON. *Data Science & Tech Associate*

January 2017 – May 2017 • Boston, MA

- + Performed data analytics and software development projects for 5 early-stage startups in the Techstars Boston class
- + Created and deployed an automatic email notification and Google Calendar bot to help organize 350+ meetings a week across 24 teams
- + Wrote code to reconcile multiple MRI data formats and anonymize patient information for a neuroengineering startup

### MIGUEL NICOLELIS NEURAL ENGINEERING LAB. *Research Assistant*

September 2015 – December 2016 • Durham, NC

- + Analyzed kinematic and in vivo neural data in a study of primate locomotion
- + Created predictive models of leg motion from cortical neuron activity for potential application to brain-machine interfaces
- + Implemented Kalman filtering and multilinear regression in MATLAB to determine phase of gait and examine neural firing patterns

