**Adam Li**

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**EDUCATION:**

**PH.D. JOHNS HOPKINS UNIVERSITY, 2020 Biomedical Engineering**

**B.S. UNIVERSITY OF CALIFORNIA, SAN DIEGO, 2015 Bioengineering**

**B.S. UNIVERSITY OF CALIFORNIA, SAN DIEGO, 2015 Mathematics-Applied Science**

**EXPERIENCE:**

**NEUROMEDICAL CONTROL SYSTEMS LABORATORY |** *Graduate Researcher* Aug 2015 – Present

* Utilizing machine learning algorithms, statistical modeling, network theory, high performance computing and spectral analysis to analyze EEG signals of epileptic patients during epilepsy (Python, MATLAB on Linux Systems)

**BIOMETRICS ANALYTICS |** *Chief Executive Officer* Sept 2013 – Sept 2015

* Researched & developed novel ways to evaluate Parkinson's Disease using biometric sensors and robust data analysis; led team in data acquisition of human data, data analysis and statistical analysis using MATLAB and Python
* Developed Parkinson’s disease tracking software using Microsoft Kinect with C++, C#, MATLAB and Python to create data acquisition and machine learning algorithms and movement analytics
* Raised over $20,000 and filed an IRB for carrying out pilot clinical human study; received the Gordon Fellowship Award for outstanding engineering leadership (awarded to 3 students/year at UCSD)

**WEST HEALTH INSTITUTE 501© |** *Data Processing Intern* Jun 2014 – Jun 2015

* Wrote pymongo queries running on an event scheduler (python, MongoDB) that provide metrics and analytics for the clinical team to analyze behavior during gameplay on the Microsoft Kinect
* Developed clinical web forms using HTML, CSS, Highcharts.JS, JavaScript (with JQuery), which are then linked to a DB with Node.js; tested on an AWS instance using git and bitbucket VCS
* Built an Android application that created a custom launch screen for the clinical team with Java and XML

**UCSD COMPUTER SCIENCE |** *Computer Science Tutor under Gary Gillespie*Sept 2014 – Mar 2015

* Assisted 100+ students in learning basic data structures and algorithms in Java, C and C++
* Graded exams and supported professor in communicating fundamental concepts in computer science

**GENENTECH INC. |** *Process Development Engineering Intern* Jul 2013 – Sept 2013

* Developed a new batch control process using a Programmable Logic Controller (Structured Text, Python and SQL) and a modular control system to improve processes which resulted in improved efficacy at the pilot plant scale (~100-1000L)
* Designed software iterations to incorporate SMART goals, object-oriented programming, ISA control architecture, and UX friendly HMI system for running pilot plant processes

**ENGINEERING WORLD HEALTH |** *Project Team Leader*Sept 2012 – Jun 2014

* Collaborated with UCSD School of Medicine and a clinic in Mozambique to develop a medical device capable of diagnosing HIV drug resistance, which culminated in 2nd place for the National Design Competition out of 22 chapters
* Led team of 10 in product development, while managing a budget of over $10,000. Developed firmware on microcontroller using C++ and C (utilized PID algorithm, SolidWorks and circuit design)

**QUALCOMM INSTITUTE |** *Summer Research Scholar* Sept 2011 – Jul 2013

* Spearheaded pilot studies to test research hypotheses, using literature and data analysis to drive conclusions; this eventually led to numerous presentations in front of ~50 scientists and industry staff
* Created standard operating procedures for image analysis, image processing, optical troubleshooting, hardware/software debugging, and working in a wet lab environment

**COMPETITIONS: (SEE GITHUB)**

**HACKPRINCETON** Nov 2015

* Developed Python/MongoDB backend, and preprocessed data into JSON for analytics and big data analysis

**MEDHACKS @ JHU 2015 (1st place)**  Oct 2015

* Developed apparatus using ultrasound transducers, raspberry PI and web server to detect blood clots

**MICROMOUSE @ UCSD 2015**  May 2015

* Developed micromouse with Teensy microcontroller, custom PCB, flood-fill alg, PID alg using C++/C

*Honors*: Tau Beta Pi, Gordon Leadership Scholar and Fellow, NSF I-Corps Awardee, IDEA Scholar, NIH NETI Fellow

*Technical Skills****:*** C, C++, Python/IPython, MongoDB, HTML, CSS, Java, JavsScript, MATLAB, Prototyping (circuits)

*Interests:* Fitness, Breakdancing, Reading, Travelling and building gadgets with electronics and software