Adam Li

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EDUCATION:

M.S.	**JOHNS HOPKINS UNIVERSITY, 2017**	**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