BRIAN LIN

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Duke University
Pratt School of Engineering
Class of 2018
GPA 3.54/4.00

PROFILE

Duke sophomore with his mind on robotics, AI computer science, wearables calligraphy and keyboards

SKILLS

LANGUAGES

Java | Swift
HTML | CSS | JavaScript
MATLAB | R

WEB DEV & IT

Amazon Web Services
LAMP | CentOS | Ubuntu
WebRTC | Polymer 1.0
Github Pages | Jekyll

ELECTRONICS

Soldering | Arduino
Raspberry Pi | Photon
Code Composer Studio | SIMULINK

OTHER

Blender 3D Modeling and Design
3D printings | Corel Draw
Photoshop | Illustrator
Logic Pro | Garage Band

INTERESTS

OUTDOORS

Long Distance Running
IM and Pickup Soccer
Hiking | Kayaking

ART & MUSIC

Piano and Guitar Covers
Baroque Cello | Viola Di Gamba
Calligraphy | Water Color

RELEVANT COURSEWORK

Data structures & algorithms (A) | Multivariable calculus (A-) | Differential Equations (A-)
Signals and Systems (A)
Next semester: Computer Architecture | Intro to AI | Software Design and Implementation

EXPERIENCE

Electronics Specialist and Webmaster, Duke Robotics Club

August 2015 - Present

- Building an autonomous underwater robot for the AUVSI RoboSub competition
- Desiging our motor control board- components include 8 DC thrusters, three motor controllers, an Arduino Mega, and an i7 central computer

Computer Science Research, Duke CS Department

August 2015 - Present

- Built and tested a wearable text-recognizing camera using a Raspberry Pi, Narrative Clip and various sensors (light, accelerometer, infrared)
- Research focuses on energy and accuracy tradeoffs of using sensors to decide when to capture images, paper has been submitted to the annual MobiSys conference

Web Development Intern, ClairVista LLC

2015 Summer

- Built a WebRTC browser test app as a diagnostics tool for video chat software
- Worked with an Amazon EC2 LAMP stack, Polymer 1.0, JavaScript, Node.js, and REST
- Online product documentation generation usiong Python's Sphinx and LaTeX

Research Assistant, Duke Lemur Center Div. of Fossil Primates

August 2014 - December 2015

- Performed MicroCT scans of fossils followed by 3D rendering and processing (fitting fragments together, isolating specific bones, and uploading scans to MorphoSource.org)

Research Intern, Northwestern University Medical School

2012 Summer

- Explored the relationship between pesticide use by farmers and incidence of cancer
- Statistical analysis (modeling, T-tests, etc.) using the R statistical programming language

SIDE PROJECTS

Duke Studies

Fall 2015 - January 2016 launch

Using Duke's course database to create a studymate-finding iOs app that matches students, project is sponsored by Duke's Office of Information and Technology

Duke Political Review Webmaster

Summer 2015 - Present

Rebuilt and redesigned the Duke Political Review's website using Wordpress.org

Handwiring Mechanical Keyboards

Summer 2015 - Present

When I have free time and access to a soldering iron, I enjoy building mechanical keyboards from scratch. This involves laser cutting an acrylic case, wiring together every single keyswitch, adding diodes to distinguish between key presses, and flashing firmware onto a 'Teensy' USB microcontroller.