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INTERNSHIP

Center For Advanced Transportation Technology University of Maryland, Maryland 20740 April 2016 - June 2016 *Software Engineer Internship*

- Visualize traffic data at U.S. and made a responsive website using Bootstrap and Javascript from scratch
- D3.js to create beautiful interactive and responsive chart table, U.S. map with density, and Ring table.
- Using **Python** and **Tableau** to analyze the data.

EDUCATION

University of California - San Diego La Jolla, California

Majoring *Computer Engineering*, Overall GPA: 4.0, expected to graduate at June 2020 Relevant Courses:

Object-Oriented Programming, **Data Structures**, **Linear Algebra** with **MATLAB**, Mathematics for **Algorithms** and Systems Analysis, Probability and Statistics with R, Discrete Mathematics, **Real Analysis**, Digital and Analog Circuit Design, Circuit and Systems, **Arduino** seminar

HACKATHONS

Leader of SD Hacks 2016: Software Development Team

Developed a sophisticated, multi-threaded, Java GUI educational game for learning programming syntaxes.

Leader of the main logic part and idea innovator.

Leader of H.A.R.D Hackathon for Qualcomm Dragonboard

Used a variety of computer techniques including BashScript, Java, C, Python

Made a smart eye mask to innovate the network communication.

PERSONAL PROJECTS

UCSD Course Visualization Map 2017 - Present

Currently working on making an interactive visualization map for all UCSD courses.

Scraped all major courses (Over 4700 courses) from (Over hundreds) websites and analyzed date using Python

Personal Portfolio Website Feb 2017 - Present

Self-learned front-end development techniques and apply it to make my own personal portfolio.

Uses HTML, CSS, Javascript, Bootstrap, Jquery to build. (https://mossaka.github.io/portfolio/)

3D Printer Filament Recycler 2016

PID temperature controller and injection molding

Recycle the useless plastic into reusable 3D printer filament

Arduino Robot 2016

State machine, **Arduino** programming, PCB Board design and 3D printing.

Arduino Piano 2015-2016

Aluminum paper with capacitors formed keyboard build by Arduino

EXPERIENCES

Programmer Lead of First Tech Challenge (Robotics) Sep, 2013 - 2016

Won the Final **Control Award** and ranked 9th in the Maryland State Championship during 2014-2015 for the autonomous design and programming.

Tutoring other teams to get started with robotic programming in Java and RobotC.

Researched in different types of sensors and made the best use of them in the state competition (Control Award).

IEEE Technical Chair Shadowing Sep, 2016 - Present

Made a flip-flop circuit to light up the Helloween pumpkin

Teaches a group of size 30 students about **Python** in an IEEE event.

Participants of Micromouse Competition

Lead of JavaSketchPad Project, 2017 - Present

A API explorer software that uses graphic interface to interact with APIs written in Java

A group project launched by students. (Source code can be seen at Github)

KEY SKILLS

Java, Python, C/C++, HTML & CSS, Javascript, Matlab, Tableau, Arduino, Objected-Oriented Design, Math Analysis