# Alexander Roy

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## Education

University of Mississippi School of Engineering B.S. Computer Science Minor in Mathematics GPA: 3.49 CS GPA: 3.85 August 2015 - Present Graduation: May 2019

## Courses

Computer Organization & Assembly Language, Discrete Mathematics, Linear Algebra

## **Skills**

Java
JavaScript / p5
HTML / CSS
C / C++

## **Activities**

Phi Kappa Psi Fraternity

Social Committee Co-Chair Managed a \$60,000 budget each semester for planning events held at the fraternity house

Executive Understudy

Communicated with the university on behalf of the fraternity

House Corp Liaison Rush Committee Captain

Association for Computing Machinery

Current Member

UM Robotics Club
Current Member

## **Work Experience**

Research Assistant October 2017 - Current

Heterogeneous Systems Research (HEROES) Laboratory Studying graphs and trees and the role they play in improving the efficiency between CPU and GPU communication through the implementation of concurrent data structures.

## **Educational Camp Counselor**

Summer 2017

UM Division of Outreach and Continuing Education
Counselor for three separate camps in which I taught basic
coding with SPRK+ robots, MIT's Scratch, Python, HTML, Blender,
and Unity to the students, and assisted in teaching upper level
engineering labs.

# **Projects**

#### Cellular Automata

JavaScript and p5 Webpage

Implementation of Conway's game of life that supports separate models that can be created with the mathematical principle, such as a forest fire simulation, and includes changing of framerate. There are options to see isolated examples of different oscillators and the Gosper glider gun.

#### www.alexanderroy.me

Portfolio Website

Using JavaScript, HTML, and CSS I created a personal portfolio website that works across devices and showcases projects as well as displays this resume.

#### toDo

Java Application

Keeps track of your current tasks and orders them in various ways based off of importance, due date, and time to complete. Implements both ArrayList and Stack data structures to manipulate the data and uses file I/O to save data and read it in during start and end of program.

github.com/avgroy