

## EDUCATION

## University of Maryland

BS Computer Science, Class 2021

## PROJECTS

## LAMIRACLE - BITCAMP 2018

- Created a software program called LaMiracle to find lyrics for songs by using the artist's name and the track name.
- <https://github.com/JohnWLuo/LaMiracle>

## SPACE INVADERS

- Constructed Space Invaders, a game where a user controls a spaceship to defeat waves of aliens.

## PONG

- Recreated PONG features using C# in Unity games engine.

## EXPERIENCE

## UNIVERSITY OF MARYLAND

June 2016 to Aug. 2016

## Research Intern at Dr. Wu's lab in the department of Electrical and Computer Engineering

- Researched forensic analysis techniques to determine location and time of recordings by analyzing electromagnetic interference in audio and video recordings.
- Built a circuit board to measure the light fluctuations to help record the light fluctuations due to the electromagnetic frequency of the power grid.
- Programmed Arduino microcontroller, which was used to collect data from light sensor circuits.
- Implemented a data compression algorithm to reduce the size of data to allow quick transfer of this light sensor data to a data collection website.

## KUMON

Aug. 2015 to Nov. 2015

- Kumon is an after school math and English learning program to help students.
- Worked as an assistant with grading and scoring of advanced math questions as well as helping the students with their English skills.
- Helped evaluate student readiness for higher level education.
- Gave feedback to help students with reading comprehension and language
- Provided constructive feedback to students to achieve a higher understanding in math.

## TEEN COURT • Juror

June 2015 to Aug. 2015

- Participated as a juror in a real world court setting for peers who have committed minor crimes.
- Worked with peers to unanimously decide on a fair punishment in relation to the crime.
- Focused on rehabilitation and discipline, such as community service or programs to help the defendant, instead of harsh punishment.

## MONTGOMERY COUNTY SUMMER CAMP • Junior Counselor

June 2013 to Aug. 2017

- Worked at the Summer Camp over the summer as a Junior Counselor and was tasked with taking care of the kids.
- Prioritized the safety of children through constant care and attentiveness.
- Made sure that all kids were having fun and engaged through creative activities.

## SKILLS

## COURSES

- CMSC351: Algorithms, CMSC330: Organization of Programming Languages, CMSC 250: Discrete Structures, CMSC216: Introduction to Computer Systems, CMSC 132: Object-Oriented Programming II, CMSC 131: Object-Oriented Programming I, AP Computer Programming 2, AP Computer Science Principles, Foundations of Computer Science
- Math 141: Calculus 2, AP Statistics, Honors Pre-Calculus, Honors Algebra 2
- AP Physics C, Honors Physics
- Introduction to Engineering Design

## SKILLS

- Proficient in Java
- Proficient in C
- Proficient in Python
- Proficient in Git
- Programming Arduino Microcontroller
- Building Light Sensor Circuits
- Learned to Solder
- Built my own personalized computer
- Building a Electric Skateboard

## ACTIVITIES

## BITCAMP 2018 AND 2019 • Hackathon

- Attended the BitCamp 2018 hackathon and created LaMiracle with 3 other people.

## MARCHING BAND AND FULL ORCHESTRA – 3 YEARS

## ADVENTURES CLUB - 4 YEARS

- Led a club to solve complex problems, such as brain teasers, using creative solutions.