Sachinda Edirisooriya

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Work Experience

Undergraduate Honors Research Program at UCSD   **Sep 2020 - Jun 2021**
Conducted independent research in the field of optical music recognition advised by Taylor Berg-Kirkpatrick
- Designed a new state-of-the-art approach to end-to-end optical music recognition using PyTorch

Computer Architecture Intern at NVIDIA   **Jun 2020 - Sep 2020**
Developed infrastructure to improve safety and security of the Tegra SoC
- Wrote scripts with Python to implement new flows into chip build process

Intern at mCube   **Aug 2019 - Sep 2019**
Tested sensors for precision and reliability
- Tested power delivery and linearity of gyroscopes

Projects

Yip (SWE Course Project)   **Mar 2020 - Jun 2020**
Worked in a team with nine others to create an online community-driven review platform inspired by Reddit
https://gitlab.com/cse110-sp20/yip
- Developed using the Rust, React, PostgreSQL, and hosted using AWS EC2
- Wrote entire backend including API/database functions using Rust, and architected the project

Mile High Restaurant (HackXR 2019 - Grand Prize Winner)   **May 2019**
Created a game in virtual reality in 48 hours that brings the user a high-intensity cooking experience
https://devpost.com/software/mile-high-restaurant
- Developed using the HTC Vive, SteamVR, and Unity
- Wrote scripts using C# and designed the gameplay/models

IEEE Autonomous Line-Following Vehicle (2nd Place Track Performance)   **Oct 2018 - Jun 2019**
https://github.com/sachindae/IEEE-Autonomous-Line-Following
Worked in a team with four others to create an autonomous line-following vehicle
- Developed using an Arduino Uno, line scan camera, and servo
- Wrote algorithms using C++ to filter raw data from camera and follow the line at high speeds

SpeakCode (SDHacks 2019)   **Oct 2019**
Created a web IDE for Javascript using Express that provides users the ability to code with their voice
https://devpost.com/software/speakcode
- Developed using Node.js, Microsoft Azure API, and hosted on AWS Beanstalk
- Wrote code to link the front-end and back-end as well as language processing algorithms

Skills/Awards

Languages/Software: Java, Python, C/C++/C#, Rust, JavaScript, Assembly, ML, PyTorch, Unity, OpenCV
WIC Beginner's Programming Competition 2nd Place (UC San Diego)   **Dec 2018**
Computer Science Student of the Year (Corona del Sol High School)   **2016, 2017**
Corona del Sol High School Valedictorian (Class Size ~ 700)   **May 2018**

Education

MS Computer Science, UC San Diego   **Sep 2021 - Apr 2023**
B.S. Computer Science, UC San Diego (3.9 GPA)   **Sep 2018 - Jun 2021**
Relevant Courses: Advanced Data Structures/Algorithms, Recommender Systems and Web Mining, Computer Architecture, Programming Languages, Object-Oriented Design, Machine Learning, AI Search and Reasoning, Operating Systems, Computer Vision, Deep Learning, Computer Security, Computer Networks, Advanced NLP, Computer Graphics, ML for Robotics