Sander Schulhoff

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Education

University of Maryland, College Park — Fall 2020 - Present
Bachelor of Science in Computer Science — *GPA: 3.753*

Research

Andreou Lab — Summer 2021
Johns Hopkins University, Professor Andreas G. Andreou

- Built data pipelines to record data from Arduino chips and RealSense cameras and send it to Microsoft \Psi
- Implemented a successful CNN+LSTM model from scratch (with Pytorch) for video classification on event camera data.

Undergraduate Research — Fall 2020 – Present
University of Maryland, Professor Jordan Boyd-Graber — *College Park, MD*

- Worked on Diplomacy boardgame NLP project developing a Discord bot used to collect player data and display machine learning predictions
- Developed a simple full-stack website to collect data for a NLP analogy project
- Built an annotation workflow for the UMD QANTA project.

Neurodata Lab Summer Internship — Summer 2019
Johns Hopkins University, Professor Joshua Vogelstein — *Baltimore, MD*

- Wrote unit tests for a project converting clustering algorithm libraries written in R to Python
- Wrote scripts to create presentational graphs of algorithm performance on data sets like Iris
- Performed investigations on different clustering metrics where ground truth is known based on the Zachary's Karate Club social network graph dataset

Projects

Teacher Recommender System | *Google Apps Scripts, HTML, MaterializeCSS* — Spring 2019 – Present

- Developed suite of scripts to automate the process of matching students with teachers who will write their college recommendation letters
- College counselors control the process from a menu with functions allowing them to create forms, send them, and run a simple scoring algorithm that generates assignments
- Students and teachers are served autogenerated Google Forms to collect their data
- Sold Alpha version and released Beta version as an official Google Sheet Add-On

Native Garden Website | *HTML, CSS, Javscript, PHP, Git* — Spring 2019

- Built a website for my highschool that allows users to browse information on the native plant gardens on campus
- Makes use of Google Sheets API and Curl search protocol to store data, read data, and automatically search and download images of plants
- Wrote custom search engine using Levenstein word distances

Heart Heist App | *Swift, Objective-C* — Summer 2018

- Built and deployed a top down shooter app using XCode
- Used Gravit Designer and Garage Band to make art and music

Technical Skills

Languages: Python, Google Apps Script, Java, Javascript, HTML, CSS, PHP, MySQL, Bash, Objective-C, C++, C#
Developer Tools: Git, Eclipse, Adobe XD, IntelliJ IDEA, Pycharm, Visual Studio, VS Code, Atom, Jupyter Notebook, Google Colab, XCode, Photoshop, MAMP, SQLPro, Unity, PHPMyAdmin, Google Drive Scripting Environment, Platform IO
Natural Languages: English, Spanish (Conversational)

Achievements

Won UMBC Hackathon 2020 (Cipher-Tech-Solutions challenge) with ForeTrackR, a novel application of Blockchain to Chain of Custody in digital forensics
Won True Bit design competition (UMBC Hackathon)