

# Sander Schulhoff

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## EDUCATION

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**University of Maryland, College Park**

2020 - Present

*Bachelor of Science in Computer Science*

## RESEARCH

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**Undergraduate Research**

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
- Developed a [simple full-stack website](#) to collect data for a NLP analogy project

**Independent Certificate in Multi-Faceted Machine Learning**

Fall 2019 – Spring 2020

- Covered topics in general deep learning, natural language processing, and reinforcement learning
- Interacted with a Cambridge, London NLP lab group run by Ryan Cotterell
- Read papers and books such as [A Deep Hierarchical Approach to Lifelong Learning in Minecraft](#), [An Introduction to Information Theory](#), [Reinforcement Learning: An Introduction](#), [Deep Reinforcement Learning: Hands On](#), [Deep Learning in Python](#)
- Received special approval from my high school to create this survey course of machine learning topics

**[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

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**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
- Alpha version has been sold to my high school and Beta is pending release as an official Google Sheet Add-On

**[Native Garden Website](#)** | *HTML, CSS, Javascript, 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 Levenshtein 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

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**Languages:** Python, Google Apps Script, Java, Javascript, HTML, CSS, PHP, MySQL, Bash, Objective-C, C++, C#

**Developer Tools:** 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

**Natural Languages:** English, Spanish (Conversational)