

Shrey Prakash Sahgal

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EDUCATION

University of Michigan

Ann Arbor, MI

B.S.E. in Computer Science

Class of 2024

Relevant Coursework: Data Structures and Algorithms, Discrete Math, Programming and Data Structures, Calculus, Physics, Chemistry, Astrophysics

Horace Mann School

Bronx, NY

High School Diploma

Class of 2020

EXPERIENCE

University of Michigan Space Physics Research Lab

Ann Arbor, MI

Research Intern

Starting January 2021

- I will be a part of a team which collects and analyzes data from the Parker Solar Probe, a NASA space probe launched in 2018 with the mission of making observations of the sun's outer corona.

Essen Medical Healthcare

Bronx, NY

SWE/Data Science Intern

March 2020 – September 2020

- Developed a REST API using Flask and PostgreSQL to store and manage patient and healthcare worker data to limit doctors/nurses/care managers workload and enhance patient care
- Designed a full-stack web application using Flask, React, and PostgreSQL so administrative assistants can match patients and healthcare workers.
- Explored ways to visualize doctor/nurse/care manager caseloads and productivity and analyze patient data

SWE Intern

June 2018 – Sep 2018

- Utilized Node.js, mongoDB, and Twilio to set up a web application which helped care managers establish reliable contact with at-risk, homeless, and non-native English speaking patients

Quio Biotechnologies

New York, NY

SWE Intern

May 2019 – October 2019

- Used Flask, PostgreSQL, Health and Human Services API, Twilio API, and Google Cloud Storage to create a centralized, categorized database of healthcare articles
- Implemented a rating/tagging algorithm to show users articles relevant to their care plans.

PROJECTS

DancingOrFalling | *Python, Flask, React, Firestore*

February 2020 – September 2020

- Built a semi-popular fullstack web app with 60 peak concurrent users and 1000 unique users where users are shown a freeze-frame image either of someone falling down or break-dancing and they have limited time to determine which it is
- Designed an algorithm which would browse reddit and find freeze-frame images of people either dancing or falling using the Reddit API and scikit-video

Staycate | *Flask, React, Twitter API, Instagram API, leaflet.js*

June 2020 – August 2020

- Developed an interactive web map which displays social media posts from around the area a user is navigating
- Created a novel API which combined functionality from the Twitter and Instagram APIs to retrieve images within a radius to a longitude/latitude.

Garf! | *Flask, OpenCV, jQuery*

March 2020 – May 2020

- Created a website which generates random Garfield comics by splicing and re-arranging frames from old comics
- Designed a comic-splitting algorithm using OpenCV

TECHNICAL SKILLS

Software: Python (+Flask/FastAPI), C/C++, Java (+Android), SQL (Postgres), JavaScript +(React/Node.js), HTML/CSS, LaTeX

Developer Tools: Git, Emacs, VS/VSCode, Google Cloud Platform

Math: Matrix Algebra, Discrete Math, Calculus

Hardware: Autodesk Inventor, OpenSCAD, Fusion 360, Shop Tools (saws, sanders, routers, mills)