

SURABHI SINGH

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EDUCATION

Carnegie Mellon University Pittsburgh, PA
Bachelor of Science in Computer Science, May 2023
Additional Major in HCI, Minor in Business

RELEVANT EXPERIENCE

The Effects of COVID-19 on Broadband (Summer 2020 - Present)

- Used **SQL** and **statistical analysis** to examine changes in the number of Internet-related complaints that the Federal Communications Commission (FCC) received
- Used **statistical analysis** to compare types of content accessed on the Internet from the pre-COVID to post-COVID periods
- Created a comprehensive report and used **Excel** to display trends in graph and map format
- Working on publishing these findings in a reputed journal
- Research **mentioned in the "Broadband for America Now" report** by the Benton Institute for Broadband and Society (reference given for our research professor Jon Peha)

Mathnasium Tutor (December 2017 - November 2018)

- Taught math concepts ranging from basic Algebra to Precalculus to students in grades K-12.

PROJECTS

Plan My Day Application (Fall 2019)

Python application that creates custom trip itineraries

- Developed the application in **Python** using **Google Maps APIs** and the **Yelp API** to build a custom trip itinerary
- Users enter travel dates, activities of interest, budget, hotel location, and desired travel radius, and the application generates a custom itinerary within the defined constraints.
- Users can see the itinerary in both calendar-form and in map-form.

Autonomous Vehicle CUI (Fall 2020 - Present)

Prototype for a Conversational User Interface in an autonomous car

- Used **Figma** to create a journey map for a customer traveling by car to identify her pain points and brainstorm possible solutions
- Constructed scripts in **Voiceflow** to simulate a user's interactions with the CUI and implemented them in the **Amazon Alexa Developer Console**

FedEx Tracking Application (Summer 2020)

Web application that displays FedEx package information (Independent Project)

- Created the application in **Java** using **FedEx Web Services** and **Spring Boot**
- Users enter a tracking number and receive information about their package (shipper address, destination address, etc.)

Online Yoga Application (Fall 2020)

Prototype for an online yoga app

- Conducted primary and secondary research to determine the common problems yoga students face with attending classes online
- Created storyboards and scenarios to simulate possible uses and features of the app
- Developed lo, mid, and hi-fidelity prototypes using **Figma** to simulate the app's interface

RELEVANT COURSES

Computer Science: Fundamentals of Programming and Computer Science, Great Theoretical Ideas in Computer Science, Interaction Design Overview, Principles of Functional Programming, Principles of Imperative Computation

Math: Calculus in Three Dimensions, Introduction to Probability Theory, Mathematical Foundations for Computer Science, Matrices and Linear Transformations

Business: Microeconomics

SKILLS

Advanced: Python, Java, C, Spring Boot, Excel, Figma, InVision, Adobe InDesign, Voiceflow

Intermediate: SML, SQL, XML, Swift, Amazon Alexa Developer Console

ACTIVITIES & HONORS

Dean's List (Spring 2020)

School of Computer Science Mentor (August 2020-Present)

Women @ SCS (August 2019 - Present)

Women in Politics (August 2020 - Present)

Strong Women Strong Girls Advocate (August 2020 - Present)