SANCHIT BATRA

📅 11/19/1997
✉ sanchitb@buffalo.edu

🏠 2021 Sweet Home Rd, Buffalo 14228, NY, USA
📞 (716) 418-6482
🔗 https://sanchitcop19.github.io

EDUCATION

Computer Science | Music　　08/2016 – 05/2020
University at Buffalo, NY

GPA: 4.0/4.0

WORK EXPERIENCE

Research Aide | Developer　　05/2019 – present
Dept. of Computer Science, University at Buffalo, NY

- Contributing to the design of a project on ethics in algorithm design for ~300 students
- Designed the algorithm for and implemented an efficient routing simulator (*Python*)

Teaching Assistant　　08/2017 – present
Dept. of Computer Science, University at Buffalo, NY

>>> *Algorithms*
- Developed the template and grading code for an NP-Complete reduction programming assignment (*Python, C++, Java*)
- Provided comprehensive (97%) test coverage (*PyTest*) and generated graph testcases (*NetworkX*)
- Fixed bugs in the auto-grading software

>>> *Data Structures*
- Conducted recitations and office hours, helped manage the course Piazza page and provided debugging support (*C++*)

>>> *How The Internet Works*
- Supported recitations, mentored students and provided debugging support (*JavaScript, SQL*)

Research Assistant　　04/2018 – present
Motion Simulation Lab, University at Buffalo, NY

- Constructed a virtual model of a section of UB's North Campus for autonomous vehicle research, and led the creation of an environment for training drivers (*Unity3D, C#*)
- Produced heightmaps by encoding elevation data in PNG files (*Python, Google Elevation API*)

Mathematics Tutor　　09/2017 – present
Math Place, University at Buffalo, NY

AWARDS

- Ranked 3rd on the UB ACM leaderboard for AoC'18
- 2018 Grace W. Capen Award recipient
- Top student contributor for the Piazza pages of 9 Computer Science courses
- Top 250 out of 42000 scholars at the WSC Tournament of Champions hosted at Yale
- #1 @ Wired, #2 @ Cord 'n Blend, #4 @ Buffalo Untapped

PROJECTS

babel-ar　　02/2019
* Winner @ BrickHacks *

- ASL to text translator for AR smart glasses
- Won the Best Use of 5G Currencies in Immersive Media award sponsored by Verizon at BrickHacks

spotify-tools　　07/2019

Helper tools for:
- Creation of custom practice routines using a pre-specified tempo or key
- Chord and timbre analysis for songs

roseate-engineering-services　　07/2019
* 23% revenue bump *

- Constructed a website for an electrical consultant
- Orchestrating the development of a price-list retrieval software intended to increase efficiency

ub-lost-and-found　　12/2016
* 2.7k views (Google Search Console) *

- Developed the back-end for a website to facilitate easy broadcasting of lost items [72.5% success rate]

the-unbored　　06/2019

- Recommender system for the Bored API based off of user personalities extracted from tweets

ubhacking　　05/2017

- Aided in the construction of the FAQ admin panel and authentication pages for the UBHacking website

math-place-scheduler　　04/2019

- Engineering a web app to replace our current means of exchanging shifts in the Math Place at UB

SKILLS

Technical

Skill	Level
Python | Flask | PyTest	●●●●●●●●●●
C | C++	●●●●●●●●○○
Java | Bootstrap	●●●●●●●○○○
Bash | Unix | Git VCS	●●●●●●○○○○
Markdown | LaTeX	●●●●●●○○○○
HTML | CSS	●●●●○○○○○○
JS | PHP | SQL	●●●●○○○○○○
AWS | GCP | Docker	●●●○○○○○○○
Unity3D | C#	●●●●●●●●○○