**Samantha Zhang**

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**OBJECTIVE**

Computer Science major with keen interests in delivering great user experiences with software development and design. Looking to be part of a team to develop impactful solutions.

**EDUCATION**

**Cornell University**,College of Engineering, Ithaca, NY **Expected May 2023**

Bachelor of Science, Computer Science • GPA: 3.96 • Dean’s List for all semesters

***Relevant Courses:*** Object-Oriented Programming and Data Structures, Discrete Structures, Data Structures and Functional Programming, Computing Using Python, Intro to iOS Development, Intro to Digital Product Design

**ACADEMIC PROJECTS**

[**Challenge With Friends**](https://github.com/sazhang02/AppDevHackChallenge), *Introduction to iOS Development*  **Spring 2021**

* Won best overall app in Cornell AppDev Hack Challenge against 18 student teams
* Designed and built an iOS app using Figma and Swift
* Implemented entire iOS frontend featuring tab-based navigation system, user login portal, data filtering, and encoding/decoding images
* Integration with backend team members’ custom API deployed on Heroku using Alamofire & CocoaPods

[**Stuck In the Desert**](https://github.com/sazhang02/CS-3110-Final-Project), *Data Structures and Functional Programming* **Spring 2021**

* Collaborated with team members to create a fully functional RPG top-down puzzle exploration level-based game using OCaml
* Implemented main game logic and GUI with OCaml Graphics library and camlimages

[**Instagram Case Study**](https://medium.com/@sjz46/instagram-concept-an-alternative-to-scrolling-past-posts-7445f592b6c), *Intro to Digital Product Design* **Spring 2020**

* Designed and prototyped a custom navigation and categorization of feeds to improve Instagram user experience (UI/UX)

[**ChewQueue**](https://www.figma.com/proto/YSXPWkmC3BhqieXJ3bdVMZ/ChewQueue?page-id=11%3A40&node-id=135%3A2286&scaling=min-zoom), *HackOurCampus*  **August 2020**

* Collaborated with three other Cornell students to create an online ordering system hack addressing de-densifying overcrowded on-campus dining locations in a hackathon

**[Virtual Reality World (SOHA)](https://github.com/sazhang02/Unreal-SOHA)**, Visual Imaging in the Electronic Age Fall 2019

* Collaborated with architecture and urban planning students to develop an immersive virtual reality experience using the Unreal Engine
* Implemented locomotion system, object interaction system, and dynamic environment using the Unreal Engine’s Blueprints Visual Scripting system

**EXTRACURRICULAR ACTIVITIES**

**Software Team**, *Cornell Nexus*  **March 2021 - Present**

* Working with a diverse team of students to make an autonomous robot that will collect microplastic from beaches and oceans
* Designed robot control GUI on Figma and implementing it using Python libraries such as PySimpleGUI and Matplotlib
* Developing real-time display for robot data, status, geolocation, and traversal history as well as interactive features such as autonomous/manual control and a command-line

**Girls Who Code Volunteer**, *Women In Computing at Cornell (WICC)*  **February 2021 - May 2021**

* Guided high schoolers weekly through exercises in Python designed to help them learn fundamental programming concepts and mentored student on guessing game project created from scratch

**Photo and Film Committee**, *Women In Computing at Cornell (WICC)*  February 2020 - May 2021

* Collaborated with committee members to make videos offering advice to underclassmen, create media promoting CIS, and run campaigns to encourage people from all backgrounds to confidently engage with the CIS community

**Undergraduate Mentor**, *Women In Computing at Cornell (WICC)*  March 2021 - May 2021

* Met with CIS underclassmen weekly, held socials, and provided guidance

**RELEVANT EXPERIENCE \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Neural Networks for Meta-Emotions,** *National Science Foundation REU Undergraduate Research* Assistant **June 2021 - Present**

* 1 of 10 out of 292 students selected to participate in Georgia State University’s Research Experience for Undergraduates in Immersive Media Computing
* Created 3D polygon meshes of actors’ faces from stills using FaceBuilder add-on for Blender
* Humanizing NPCs by using data derived from acting footage to train a Recurrent Neural Network for determining and animating lifelike NPC facial expressions for Neural Networks for Meta-Emotions research project

**AI Bot Gaming Platform**, *Full-Stack Intern* **December 2020 – February 2021**

* Implemented a multiplayer online game of Dots and Boxes in a Python web server deployed in a docker container in AWS
* Setup a new lambda deployment pipeline to AWS in a docker container for automatically updating games

**Mobileware Inc.**,*Design Intern* **May 2020 – August 2020**

* Designed logos, custom icons, promotional images, and mockups to improve usability for commuter schedule app and finance tracking website using Sketch and Figma

**SKILLS**

* **Programming Languages:** Python, Java, OCaml, Swift
* **Applications/Tools:** Github, VSCode, Atom, Eclipse, Figma, Sketch, iMovie, & Unreal Engine