

Samantha J. Zhang

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OBJECTIVE

A software engineering internship position that will enable me to utilize my programming and design skills to enhance a company's products and services.

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, iOS Development, Digital Product Design

RELEVANT EXPERIENCE

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

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

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 social media, website, and mobile applications using Sketch and Figma

EXTRACURRICULAR ACTIVITIES

Cornell Nexus, *Software Team*

March 2021 - Present

- Working with a diverse team of 23 students to make an autonomous robot that will collect microplastics 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

Women In Computing at Cornell (WICC)

February 2020 - May 2021

- *Girls Who Code Volunteer:* Guided high schoolers weekly through exercises in Python designed to help them learn fundamental programming concepts and mentored a student on a guessing game project created from scratch
- *Photo and Film Committee:* Created and edited videos encouraging diversity and fostering a CIS community
- *Undergraduate Mentor:* Met with CIS underclassmen weekly, held socials, and provided guidance

PROJECTS

Challenge With Friends, *iOS Development*

Spring 2021

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

Stuck In the Desert, *Data Structures and Functional Programming*

Spring 2021

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

Instagram Case Study, *Digital Product Design*

Spring 2020

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

ChewQueue, *HackOurCampus*

August 2020

- Collaborated with 3 other Cornell students to create an online ordering system hack addressing de-densifying overcrowded on-campus dining locations

Virtual Reality World (SOHA), *Visual Imaging in the Electronic Age*

Fall 2019

- Developed an immersive virtual reality experience with architecture and urban planning students using the Unreal Engine

SKILLS

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