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, Introduction to iOS Development **Spring 2021**

- Won best overall app in Hack Challenge, semesterly hackathon for students enrolled in Cornell AppDev courses, against 70+ Cornell students
- 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, 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, Intro to Digital Product Design **Spring 2020**

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

EXTRACURRICULAR ACTIVITIES

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

- Working with fellow students to make an autonomous robot that will collect microplastic from beaches and oceans
- Designed GUI on Figma and implementing GUI for controlling our robot 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

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

HackOurCampus, *Designer* **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

SKILLS

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