ANGELA ZHANG

@ angelaz1@andrew.cmu.edu   angelaz1   in angelaz122   angelaz1.github.io   US Citizen

WORK EXPERIENCE

Summer Software Engineering Intern
EA Maxis Team Remote   Jun '22 - Aug '22

- Led the development of a data-driven **Unity**-based prototype for a new gameplay mechanic to answer crucial LOD design questions
- Designed key algorithms working extensively with **NavMesh** and procedural generation

Summer SWE Intern - Player Services Team
Microsoft Xbox Remote   Jun '21 - Aug '21

- Designed and implemented an IP Geolocation **Kubernetes** service for PlayFab, a backend platform hosting over **2.5 billion** player accounts for **5000** games, to provide player location information to game developers
- Automated weekly updates of database files from a Cosmos Virtual Cluster using **Github Actions** to ensure data accuracy
- Worked extensively with **Terraform**, **FluxCD** and **Azure Resources** to integrate service into existing PlayFab Kubernetes clusters and create a shareable package for other teams across Microsoft

Summer SWE Intern - Data Services Team
Microsoft Xbox Remote   Jun '20 - Aug '20

- Constructed a design document and fully implemented a data migration metadata class in **C#** for PlayFab for thousands of database entries
- Directly interacted with **CosmosDB** and **DynamoDB** database systems in implementing and testing migration

Summer Algorithmic Design Intern
SeisWave Houston, TX   Jun '19 - Aug '19

- Developed model-building algorithms in **C** to automate the analysis of seismic data, greatly improving accuracy and efficiency from industry-standard methods

PROJECTS

Bigger, Badder, Buggier
Web Game - UI + Gameplay Programmer   Jan '21 - May '21

- Worked with an interdisciplinary team of 20 to create a **Unity** game to capture the spirit of CMU Buggy Racing during the remote semester
- Implemented CPU buggies using Unity's built-in **NavMesh** system and added heuristics for a more engaging racing experience, such as rubber-banding speeds and interacting with items

C0 VSCode Language Support
VSCode Extension - Programmer   Nov '19 - Jan '20

- Designed and released a VSCode extension in **TypeScript** with a team of four other teaching assistants currently used by over **4500** students
- Improved the efficiency and understanding of student coding through providing language support features including auto-completion, syntax highlighting, and go-to

EDUCATION

B.S. in Computer Science
Minor in Game Design
Carnegie Mellon University

 May 2022   GPA: 3.93/4.00

M.S. in Entertainment Technology
Entertainment Technology Center

 May 2023

ACADEMICS

Operating Systems   Game Development
Software Development   Algorithm Design
Parallel and Sequential Algorithms
Functional Programming   Data Structures
Imperative Programming
Web Development

Linear Algebra   Discrete Mathematics
3D Calculus   Probability   Logic

TECHNICAL SKILLS

C#   C   C++   Java   Python
JavaScript   TypeScript   HTML   CSS

Unreal   Unity   GameMaker Studio 2
Kubernetes   Docker   Git   Perforce

OTHER

15-122 Lead Teaching Assistant
Carnegie Mellon University

- Instructs an introductory imperative programming course in **C** with an average of **500** students each semester
- Directly manages a staff of over **40** teaching assistants