

ANGELA ZHANG

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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 in **C#** 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

Masters in Entertainment Technology

Entertainment Technology Center

May 2023

B.S. in Computer Science

Minor in Game Design

Carnegie Mellon University

May 2022

ACADEMICS

Operating Systems

Game Development

Software Development

Computer Graphics

Algorithm Design

Functional Programming

Data Structures

Web Development

Machine Learning

Linear Algebra

Discrete Mathematics

3D Calculus

Probability

TECHNICAL SKILLS

C#

C

C++

Java

Python

JavaScript

TypeScript

React

Node.js

Unity

Unreal

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 while directly managing a staff of over **40** teaching assistants

ARCC - Chinese Culture Club

President, Secretary, Producer

Organizes events for hundreds of students to promote Chinese culture through food, dance, and an annual large-scale theatre performance