Aining Li

annieli2025@u.northwestern.edu | GitHub | LinkedIn

EDUCATION

Northwestern University | Computer Science Major | GPA: 3.9/4.0   Sep 2021 - Mar 2025

Courses: Computer Systems, Operating Systems, Data Structures and Algorithms, Software Architecture, Databases, Computer Networks, Machine Learning, Game Development

Languages: Proficient in Python, C, C++, C#, SQL; Familiar with HTML, CSS, JavaScript, TypeScript, Racket

Other Technologies: Git, Unity, AWS, Node.js, Express.js, React.js, Shell, Linux, Markdown, OOP, Linux

Certificates: Unity Essentials Pathway and Unity Junior Programmer by Unity Technologies

WORK EXPERIENCE

Game Client Engineer Intern   Jun 2023 - Sep 2023

Interned at Xingqiwan Technology Co., Ltd in Chengdu, focusing on UI enhancements for a Disney role-playing game using **C#** and **Unity**. Constructed a top-down shooting game with player, enemy, weapon systems, map generation, music, and UI elements. Gained experience in teamwork and client-side development for games.

CS150 Python Course - Peer Mentor   Mar 2023 - Dec 2023

Tutored 100+ students during the weekly 6-hour office hours for a **Python** course to communicate technical concepts, guide peers in problem-solving, debug, and foster a collaborative environment.

PROJECT EXPERIENCE

Assignment Submission Management Command-Line Tool   May 2024

Developed a Gradescope-like command-line tool for managing assignment submissions, utilizing serverless architecture and **AWS** services (**S3** storage, **RDS**: **MySQL** database, and **API** Gateway). Supported functionalities include student/teacher creation, assignment management, PDF submission, grading, and viewing grade distributions and a leaderboard. Built client and server in **Python**.

Operating System Scheduling Algorithm Implementation   Apr 2024

Implemented various scheduling algorithms in **C**, understanding their differences: First-in First-out, Shortest Job First, Preemptive Shortest Remaining Time, Preemptive Static Priority, Round-Robin, and Stride Schedulers.

Pocket Cats Hackathon Project   Apr 2024

Collaborated on developing Pocket Cats, a gamified expense tracking webpage, aimed at encouraging users to follow the 50:30:20 savings rule through virtual cat care. Created frontend using **React**, **TypeScript**, **CSS**, and **HTML**.

BusTub Database Project   Jan 2024 - Mar 2024

Implemented several features in the BusTub relational database management system with **C++**. Features included thread-safe LRU-K replacer, disk scheduler and buffer pool manager, disk-supported hash index with extendible hashing, and query operators and optimizer rules.

SafeSpace 2D Sandbox Game   Jan 2024 - Mar 2024

Led a team in developing SafeSpace, a 2D pixel art sandbox game using **C#** and **Unity**. Created inventory system, hotkey bar, item interactions, and sound effects. Players must gather resources, upgrade equipment, battle monsters, craft spaceships, and escape the planet.