Chengze (Cheng) Liu

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EDUCATION

University of Houston, Houston, TX

Bachelor of Science, Computer Science GPA 4.00

Expected December 2025

Minor: Math

Relevant Coursework: Software Design, Database Systems, Algorithms and Data Structures, Data Science and Machine Learning, Intro Game Art and Animation, Intro to Complex Analysis

SKILLS

Programming C/C++, Python, Java, C#

Tools MySQL, SQLite, PostgreSQL, Visual Studio Code, R, Clip Studio Paint, Unity

Frameworks Django, Flask

Language Fluent in English and Chinese

ACADEMIC EXPERIENCE

Software Design Project - github.com/37DG/4353-project

January 2025 - May 2025

- Collaborated with 3 team members to design, program, and successfully deploy a SaaS-based website using the Django framework. Implemented Agile development methodology, and integrated a Flask-based project from another team by establishing Django-Flask communication.
- Utilized Python, HTML, CSS, and JavaScript for development; leveraged Visual Studio Code and Makefile for project management; managed databases using MySQL and PostgreSQL; documented with LaTeX.
- Developed a system with account management, Microsoft credential login/logout, online request submission, automated PDF generation, and an approval workflow for reviewers. Integrated additional request submission and review features from the flask-based external project.
- Created well-designed HTML, CSS, and LaTeX layouts, earning praise from both classmates and the instructor for clarity and presentation.

Intro Game Art and Animation Project - chengze24.github.io/portfolio/

January 2025 - May 2025

- Designed 2 unique characters with 3 animations each using Clip Studio Paint and Unity, and created a background art for the game environment. Programmed character functionality and animation integration with C#.
- Earned recognition as one of the Top 5 most popular character designs in a class presentation, showcasing creativity and strong visual appeal.

Data Science & Machine Learning - github.com/Alexav3/Group 4 MATH4322 Project/tree/main

January 2024 - May 2024

- Collaborated with 4 team members to analyze the <u>Concrete Compressive Strength</u> dataset using R and Quarto for data processing and visualization.
- Applied statistical methods including linear regression, random forest, and cross-validation to identify the best predictors of compressive strength.
- Evaluated the effectiveness of various statistical models, successfully identifying key predictors and optimizing model performance.

Intro to Programming Project

September 2023 - December 2023

- Designed and programmed a turn-based role-playing game (RPG) allowing players to create custom characters and combat computer-controlled enemies.
- Utilized C++ and Visual Studio Code to implement classic RPG mechanics.
- Earned recognition for one of the Top 10 overall game design in the class.

WORK EXPERIENCE

Haidilao Hotpot

September 2021 - May 2022

Busser

 Coordinated with 2 team members to manage facility operations, including setting up and closing down the restaurant efficiently. Assisted with food, snack, and beverage preparation during business hours, ensuring smooth service and customer satisfaction.

HONORS

Dean's List Fall 2024, Spring 2024, and Fall 2023