William Z. Liu

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Education

University of Illinois Urbana-Champaign

Bachelor of Science in Computer Science and Linguistics, May 2026

GPA: 3.92/4.0

Relevant Coursework: Data Structures (CS225), Applied Machine Learning (CS441), Discrete Structures (CS173) Probability and Statistics in Computer Science (CS361)

American Invitational Mathematics Examination (AIME), Qualifier: Top 5% of AMC 12 Participants (2022)

Experience

AT&T | Research Intern

June 2023 - August 2023

- Developed a console application using Python and the ChatGPT API to generate network topology diagrams based on natural language
- Built, rigged, and animated a realistic 3D model of a human with MetaHuman and Mixamo
- Wrote C# scripts for movement and physics in a 3D game
- Integrated speech-text translation and ChatGPT API for verbal dialogue with NPCs
- Configured the 3D game in Unity for virtual reality to test it as an application for edge computing

Commvault | Software Engineering Intern

December 2022 - June 2023

- Created a cross-platform application to check the proxy configuration of the current device
- Built the GUI in .NET MAUI with XAML and C# for consistent cross-platform appearance
- Updated legacy projects from .NET 4 to .NET 6 by transitioning the reference binaries using .NET Upgrade Assistant

AiGoLearning | Computer Science Teacher

June 2020 - August 2021

- Taught middle-school children computer science principles in Scratch and Python

Projects

Parrot | *HTML, CSS, JavaScript, Firebase*

- Developed a web application for students to communicate virtually with their teachers in real-time
- Built the front-end with HTML, CSS, and JavaScript
- Integrated Firebase scripts to store the data for each class and connect students to teachers instantly
- Implemented Google authentication with Firebase to create user accounts.

Scolisense | *C++, TypeScript, React, Fusion360, Arduino*

- Constructed a shoulder-mounted device to measure scoliosis risk via a connected web application
- Designed the physical container in Fusion360 and 3D printed it
- Programmed the Arduino microcontroller to collect shoulder angle data from gyroscope
- Created the connected web application with React and TypeScript

Escape the Ship! | *Python, PyGame*

- Built a 2D platformer strategy game in Python with PyGame
- Implemented a complete movement system with background scrolling

Moody | *Python, Pillow*

- Developed an application that edits images to express a user-inputted mood
- Edited the images with Python and Pillow, processing the images with NumPy

Technical Skills

Languages: Java, Python, C, C++, C#, HTML, CSS, JavaScript, TypeScript, MatLab

Technologies: Git, React, .NET, Unity, Firebase, AWS, Docker, NodeJS, SQL, TensorFlow, PyTorch