# Liheng Yuan

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#### **Education**

Northwestern University Evanston, IL

Computer Science, GPA: 3.56 Expected Graduation: June 2027

University of Florida Gainesville, FL

Computer Science, GPA: 3.92 Aug 2023 - Apr 2024

Relevant Courses: Data Structure & Algorithm, Intro to Computer Systems, Software Architectures

#### **Projects**

### **Social Media Application**

Dec 2024

- Developed a web application using React, Express, and Supabase to create an engaging online social networking platform, enabling user authentication and personalized profile creation
- Implemented Supabase as the backend database for efficient data storage and management
- Built and optimized RESTful APIs for data retrieval between the front-end and back-end systems

Blog Application Nov 2024

- Built a blog application using MERN stack to enable users to create, post, and manage blog content
- Designed a responsive user interface with React. Built RESTful APIs with Express and Node to handle CRUD operations, user authentication with JWT, and file uploads using Multer
- Created a database using MongoDB to achieve efficient data storage and retrieval

#### **Open Street Map Navigation System**

Oct 2024

- Created a basic navigation application by utilizing C++ to provide routing and direction features
- Implemented parsing algorithms for OSM, XML and CSV data containing map information and geospatial algorithms for routing, distance calculation, and finding nearby bus stops
- Integrated the Chicago Transit Authority bus tracking API to deliver real-time bus arrival predictions, enabling users to optimize their travel plans and minimize wait times

2D Shooting Game Feb 2024

- Developed a 2D shooting game using Python and the Pygame library
- Applied object-oriented programming (OOP) principles, with separate classes for players, enemies, bullets, explosion, obstacles and decoration, enhancing code maintainability and scalability
- Delivered a smooth and realistic player experience by handling animations and managed game physics such as velocity and collision, enhancing overall gameplay quality and user engagement

## Leadership

### Finance Team Member – Southeast Regional Conference Committee

University of Florida, Gainesville, FL

Aug 2023 – Jan 2024

- Managed financial planning for the Southeast Regional Conference, an event attended by 275 students and professionals, fostering networking opportunities and professional interactions
- Negotiated and secured 5 sponsorships Procter & Gamble, CIA, Lockheed Martin, Axogen and Sargent & Lundy, generating over \$4,000 in funding for the event

#### Skills

**Programming Languages:** Python, C, C++, C#, Java, JavaScript, CSS, SQL

Relevant Skills: Git, API, AWS, Linux, Unix, MongoDB, Express, React, Node.js, Supabase