

Liheng Yuan

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EDUCATION

Northwestern University

Bachelor of Arts in Computer Science

Expected Graduation: Dec 2026

Evanston, IL

GPA: 3.56/4.00. Major GPA: 4.0/4.0. Clubs: Emerging Coders, DISC, Institute of Electrical and Electronics Engineers

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

EXPERIENCE

P.A.T.H. (AI Startup)

Jan 2025 – Present

Software Engineer Intern

Evanston, IL

- Improving an AI-powered Vue.js web app delivering personalized workout and nutrition plans for **1000+** users
- Enhanced JavaScript frontend performance using lazy loading and browser caching, reducing runtime by **30%**
- Built a REST API using Python and Flask and deployed on AWS to deliver AI model response to frontend
- Implemented semantic search using FAISS and SentenceTransformers, achieving **95%** accuracy in meal suggestions
- Adjusted OpenAI model prompts to improve personalization of advice, increasing user satisfaction by **20%**

Discover & Innovate For Social Change (Northwestern Organization)

Jan 2025 – Present

Software Engineer Intern

Evanston, IL

- Developing an inventory management system for a non-profit, replacing Excel-based inventory management
- Engineered an employee dashboard with item data entry using React, reducing manual process time by **60%**
- Integrated PostgreSQL to store inventory data such as price, approval status, and quantity across **2,000+** items
- Applied role-based access control using Supabase Auth, enabling granular data access for **30+** employees

Northwestern's Department of Computer Science

Jan 2025 – Present

Teaching Assistant

Evanston, IL

- Provided instruction on C and C++, focusing on manual memory management and abstraction principle
- Mentored **200+** students in weekly office hours and provided feedback on assignment submissions
- Guided students in learning industry-related programming languages and tools such as Git, Github and CLI

PROJECTS

Social Media Application | React, PostgreSQL, REST API, Supabase

Dec 2024

- Developed a web application using React, Express, and Supabase to create an engaging social networking platform
- Optimized RESTful APIs for data retrieval between front-end and back-end systems

Blog Application | MongoDB, Express, React, Node

Nov 2024

- Built a blog application using MERN stack to enable users to upload, post, and manage blog content
- Applied RESTful APIs with Express and Node to handle CRUD operations, and utilized MongoDB for database
- Implemented secure user authentication using JSON Web Tokens and file upload functionality with Multer

Open Street Map Navigation System | C++

Oct 2024

- Created a basic navigation application by utilizing C++ to offer routing and direction features
- Implemented geospatial algorithms for routing, distance calculation, and finding nearby bus stops
- Integrated bus tracking API to deliver real-time bus arrival predictions, enabling users to adjust travel plans

2D Shooting Game | C++

Oct 2024

- Developed a 2D shooting game in Python using Pygame, providing a highly responsive 60 FPS gaming experience

TECHNICAL SKILLS

Languages: C, C++, JavaScript, Python, SQL, C#, Java

Frameworks & Libraries: React, Express, Next.js, Vue.js, React Native, Tailwind, Flask, Docker

Others: Node.js, PostgreSQL, Vercel, HTML, CSS, Git, Github, AWS, SQLite, Firebase