# TINGJUN LIU

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# **SUMMARY**

Seeking a full-time software development engineer, front end, and backend position.

Solid software engineer with strong programming and analytical skills. Has a wide range of software development project experiences, including full-stack, web application development, and game development using **React**, **Express**, **MySQL**, **MongoDB**, **PHP**, **JavaScript**, **JAVA**, C++, and **Python**.

Have experience in machine learning technique like **TensorFlow** or **PyTorch**. Capable of using models like **CNN**, **RNN**, and **Transformer** to solve realistic problems. Be able to use **LoRA**, **Adapter**, **and Prompt tuning** to fine-tune open-source LLMs and CV models. Familiar with **LangChain** to build applications based on GPT's API.

## **EDUCATION**

## Washington University in St. Louis

August 2022 - May 2026

Bachelor of Science in Computer Science

**GPA 4.0/4.0** 

#### **WORKING EXPERIENCE:**

# DHC Software Co., Ltd (Python, JAVA, LangChain, LoRA)

Intern in Financial Big Data Technology Department: Software Developer

May 2023 - July 2023

- Developed an AI credit reporting system using ChatGLM-6B
- Trained the model with **LoRA** and **P-tuning** to meet the specific requirements.
- Using React and Express to build an application to use the modal for credit assessment and anti-money laundering.

#### Cuisine Hub (MySQL, React, Product Design)

University Entrepreneurial Team: Product Designer

Feb 2023 - Jun 2023

- Developed recipe analysis software based on artificial intelligence, which provides users with recipes that suit their tastes.
- Designing the **MySQL** database structure, participating in product design planning, determining requirements and functions, and writing front-end pages using **HTML**.

### Beijing Institute of Technology (Transformer, Pytorch, MobileNet v2)

Computer Science Elite Program: Researcher

Sep 2021 - Apr 2022

- Utilizing Transformer models from the field of Natural Language Processing (NLP) for MIDI music generation
- Employed the **MobileNet V2** model to identify music's style and emotion based on waveform images.

### Guilin Experimental High School (C++, Algorithms and Data structures)

Computer Education Program: Olympiad in Informatics Teacher and Program Leader

July 2019 - July 2022

- Initiated a computer support teaching project at Guilin Experimental Middle School Affiliated with Capital Normal University, where I taught over 100 students and gave over 200+ lectures.
- Taught information competition classes to help students learn competition algorithms and prepare for major international information technology competitions.

### **PROJECT EXPERIENCE:**

## Gomoku Battle Program and AI (C++)

July 2021 - Sep 2021

- Implement the basic logic and interface of the Gomoku game.
- Use C++ to write AI algorithms and optimize them using the Expectimax algorithm.
- Debug and test the program to ensure its stability and functionality.

# Bill Split: Team Expense Manager (MongoDB, Node.js, React)

Mar 2023 - Apr 2023

- Developed the front end using **React**, ensuring a responsive and user-friendly design.
- Implemented the backend using Node. is Express, including expense management and database connectivity APIs.
- Designed and implemented the **MongoDB** database schema to efficiently store and retrieve expense data.

### Team Event Management System Similar to Google Calendar (PHP, AJAX, HTML, MySQL)

Apr 2023 - May 2023

- Use **PHP**, **JavaScript**, **HTML**, and **AJAX** to implement the system's essential functions, like adding events and joining teams to view team events.
- Implement the core logic of event management, including adding, deleting, and modifying events.
- Design a MySQL database to save users' data.

#### HONORS AND AWARDS

•	Distinction Rank (Top 5%) in 2021 AMC 12A	Dec 2021
•	1st Place in Gold Division (out of 723 participants) of the USACO Contest	Jan 2020
•	Top 2% of 148,880 students, National Olympiad in Informatics in Province (NOIP)	May 2019
•	Dean's List at Washington University in St. Louis for all semesters.	June 2023