DIJKSTRA LIU

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SUMMARY

Has a wide range of software development project experiences, including full-stack, web application development, and game development using **React, Spring Boot, Flask, 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. 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 (Django, React, LangChain, Fine-Tuning)

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 **P-tuning** to meet the specific requirements, adding **Postgres** database using **Langchain.**
- Using **React** and **Django** to build an application to use the modal for credit assessment and anti-money laundering.

Cogno Technology (GPT API, Flask, Docker, Milvus, AWS)

Model fine-tuning specialist.   July 2023
- Creating a WeChat bot based on **Chroma** database and **GPT API** using **Langchain**. The bot can reply message based on docs, audio and image users send.
- Develop a secondary encapsulation framework and the OpenAI API using **Flask**, to achieve decoupling between the business end and the core logic. Transfer the previous business logic of Cogno.
- Build an independent e-commerce site based on LLM customer service and product search using **Flask**, **MySQL**, and **Milvus**. Mainly responsible for backend design, development, and debugging. Deployed on AWS using Docker.

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

Computer Science Elite Program: Researcher   Sep 2021 - Apr 2022
- Using **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.

PROJECT EXPERIENCE:

Bill Split: Team Expense Manager (MongoDB, Node.js, React)
- Developed a user-friendly interface with **React** for efficient team expense tracking and management.
- Implemented a graph theory algorithm to streamline and simplify the transaction process among team members.
- Built backend operations with **Node.js** and **Express**, including APIs for adding, retrieving, modifying, and deleting expenses.
- Designed a **MongoDB** schema for optimal storage and querying of expense data.
- Employed **Git** for version control and deployed using **Docker** for consistent environments.

WashU Internal Second-hand Goods Trading Platform (Spring Boot, React)   July 2023 - Sep 2023
- Led the design and development of WashU's internal second-hand trading platform, serving students and faculties.
- Crafted a React-based interface and backend services with **Spring Boot**.
- Introduced the **GPT API** to enhance user shopping experiences through intelligent product insights and providing users with tailored product suggestions.
- Utilized **Git** for version control and deployed with **Docker** for consistent application environments.
- Continuously updated and optimized platform features based on user feedback and changing requirements, ensuring the platform's relevance and efficiency.

Team Event Management System Similar to Google Calendar (PHP, AJAX, HTML, MySQL)   Apr 2023 - May 2023
- Developed key functionalities using **PHP, JavaScript, HTML,** and **AJAX**, such as event addition and team joining to view collective events.
- Executed core event management logic, encompassing the addition, deletion, and modification of events.
- Crafted a **MySQL** database structure to securely store user data and event details.

Storm Watch: A multi-player 2D RPG shooting game (C#, Unity)   June 2023 - Sep 2023
- Spearheaded the development of "Storm Watch," a multi-player 2D RPG shooting game using **Unity** and **C#**.
- Took the helm in game design, conceptualizing and detailing the game's narrative, characters, and setting to create a compelling backdrop for the gameplay.
- Implemented **local area network (LAN)** multiplayer capabilities, permitting players to team up or combat in real-time.
- Designed and integrated character skill effects, enriching gameplay dynamics.
- Engineered the core game logic, providing a robust foundation for character movements and balanced gameplay mechanics.
- Actively gathered and implemented player feedback, continuously refining the game for an optimal experience.

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

Dijkstra Liu