# **DIJKSTRA LIU**

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#### SUMMARY

Seeking Software Engineer Intern starting from 2025 Summer: Experienced in full-stack, web, and game development using tools like React, Spring Boot, Flask, and languages such as Java, C++, Python, PHP, JavaScript. Knowledgeable in machine learning with TensorFlow/PyTorch and models like CNN, RNN, Transformer. Proficient with LangChain and GPT API applications. Skilled in blockchain development with Solidity and FunC.

#### **EDUCATION**

### Washington University in St. Louis

August 2022 - May 2026

GPA 4.0/4.0

Bachelor of Science in Computer Science

**TECHNICAL SKILLS:** Languages: Java, C++, Python, PHP, JavaScript, C# Databases: MongoDB, MySQL, Milvus

Frameworks and Libraries: React, Spring Boot, Flask, Django, Node.js, Express

Machine Learning Models: CNN, RNN, Transformers

Tools and Platforms: Git, GPT API, Docker, AWS, LangChain, Linux Block Chian Languages: FunC, Solidity

#### **WORKING EXPERIENCE:**

## WashU Student Life Newspaper

April 2024 - Now

Senior Web Editor

- Web Team Leadership: Led the web team, utilizing Jira and Google Workspace to streamline site functionality and boost team collaboration.
- Website Resign: Spearheaded the web team in redesigning the 2024 version of the website, leveraging PHP, JavaScript, and WordPress for implementation.
- Web maintaining: Maintained the server using Cloudflare, A2hosting, and phpMyAdmin, resolving over 50+ bugs within a two-month period.

Telegram: The Open Network (TON)

May 2024 - August 2024

- Software Development Intern Web3 Integration: Developed and integrated a Web3 system using Solidity and Python, focusing on user data collection, processing, and constructing user profiles to optimize marketing and user acquisition strategies.
- LLM Fine-Tuning: Contributed to the infrastructure setup for TON's intelligent assistant, TonGPT, by fine-tuning large language models (LLMs) to enhance system performance.

July 2023 - June 2024 Cogno

Lead Software Developer

- WeChat Bot Development: Created a bot using the Milvus database and Langchain to respond to user messages, including documents, audio, and images.
- E-commerce Platform: Using React, Flask, and MongoDB to design and implement an E-commerce Platform, providing AI seller and assistant during shopping. Currently providing customer service for 30+ e-commerce sellers.
- Vision based product upload: Implemented Open AI API and search agent integration to streamline product search and upload for eCommerce platform users, enhancing user experience and contributing to platform growth.

DHC Software Co., Ltd, Financial Big Data Technology Department Software Development Intern

May 2023 - July 2023

- Platform Creation: Developed a user credit assessment and anti-money laundering platform using React, used by three banks to judge user creditworthiness and potential money laundering suspicions based on transaction records.
- Backend Development & Designing: Designed and established the backend, using Django to handle frontend requests and interactions with the LLM API. Implemented GPTCache to reduce API call costs by 30%. The API has had over 50,000 calls.
- Model Training: Employed P-tuning to train ChatGLM-6B, allowing it to perform credit assessments based on bank data.

# **PROJECT EXPERIENCE:**

## Bear Bazaar: Experimental WashU Internal Crypto Second-hand market

July 2023 - Oct 2023

- Orchestrated the architecture and development of a high-performance trading platform for WashU, scaling to serve over 3,000 students and faculty. Leveraged Java and Spring Boot for creating resilient backend services and React for a responsive frontend, ensuring an engaging user interface.
- Implemented smart contract using Solidity to handle on-chain transactions to facilitate secure and transparent trading of second-hand goods, ensuring trust and immutability through blockchain technology.
- Led a cross-functional team of seven using Scrum methodologies, employing AWS for cloud infrastructure, ensuring robustness, scalability, and continuous integration/continuous deployment (CI/CD) practices with Git for version control.
- Implemented a continuous feedback loop with stakeholders, utilizing analytics and user feedback to iteratively refine platform features, focusing on performance optimization, security enhancements, and ensuring alignment with evolving user needs.

## Split!: Team Expense Manager

Mar 2024 - June 2024

- Developed a sophisticated team expense management application using Flutter for the frontend to deliver an intuitive user interface, and Node.js/Express for a high-performance backend, ensuring smooth and efficient operation.
- Applied graph theory algorithms to simplify financial transactions among team members, enhancing the user experience by reducing complexity settling expenses.
- Utilized Docker for deployment to maintain consistent environments across development, testing, and production stages. Adopted Git for source code management, fostering collaborative development and efficient version control.
- Implement Open AI API to detect bill and checks to analysis payment data.

#### **ORGANIZATION:**

## Washington University Chinese Groundbreaker (WUCG)

July 2024 - Now

Founder & Leader

- Organizational Leadership: Led a team of 10+ executive members and managed a community of 100+ active members, fostering collaboration and mutual support among Chinese computer science students at Washington University.
- Event Management: Organized and executed bi-monthly activities, including Leetcode practice sessions, resume seminars, project collaborations, and alumni seminars, enhancing the professional development of members.
- External Relations: Managed external relations by coordinating with alumni and other organizations to bring in guest speakers and resources, enriching the community's learning experience.

#### HONORS AND AWARDS

Distinction Rank (Top 5%) in 2021 AMC 12A

Dec 2021 Jan 2020

1st Place in Gold Division (out of 723 participants) of the USACO Contest

Top 2% of 148,880 students, National Olympiad in Informatics in Province (NOIP)

May 2019