

Yifan MAO

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Education

Columbia University in the New York

New York, NY

M.S. in Computer Engineering, Columbia Engineering

Expected Dec 2025

Core Courses: Advanced Computer Networks, Distributed Storage Systems, Internet of Things, Computer Vision, Natural Language Processing

Macau University of Science and Technology

Macau, CN

B.S. in Software Engineering, The Faculty of Innovation Engineering, GPA:3.8/4

Aug 2024

- Core Courses:** Data Structure, Object-oriented Programming by Java, Design and Analysis of Algorithms, Database Systems, Web Technology, Computer Organization, Computer Network, Software Engineering.

Experience

JD.com, Inc.

Beijing, CN

Backend Development Intern

June 2023 - September 2023

- Utilized Kafka to actively pull software operation data from the main site's Hive tables and used Flink to compute secondary data, such as program error rates. Subsequently, generated dynamic real-time charts using JD.com's low-code tools to provide department leaders with an intuitive analysis of software operation status.
- Wrote Python scripts to periodically query and store real-time data on user visits and purchases from the applet's Hive tables. Generated intuitive visual charts using JD.com's low-code tools to provide the sales department with a clear trend of user growth.
- Used Kubernetes to downscale the computing resources of the department's servers, saving company expenses.

Software Data Intelligent Analysis Laboratory - MUST

Macao, CN

Researcher - Topic: Pointer-Network-assisted Code Completion based on Large Language Model

September 2022 - June 2024

- Conducted research on enhancing code completion using pointer networks and large language models.
- Developed and implemented algorithms integrating pointer networks with large language models to improve code completion accuracy.
- Assisted in organizing and managing SANER 2023 in Macau as a Student Helper, ensuring smooth event execution and attendee satisfaction.

Projects

MathTranslate | github

Macau, CN

Implementing Google Translate-based translation of LaTeX files, ultimately translating PDFs

March 2023 - Present

- Integrated Tencent Translation Engine API to provide high-quality translation services for users in mainland China.
- Developed a feature that allows users to provide an arXiv ID to obtain the translated version of the paper.
- Used the Kivy framework to provide a graphical interface for MacOS, Ubuntu, Windows, and other versions.

MUST-Trade

Macau, CN

Second-hand Trading Platform, Team Member, Project Owner, Course Project

September 2022 - November 2022

- Used Springboot and MyBatis frameworks to achieve user login, product query, etc.
- Used eCharts to visualize data such as user visits, implemented permission management, and managed product listings to help administrators maintain platform operations.
- Enhanced team communication and reviewed the work process through Sprint Planning, Daily Scrum, Sprint Review(Scrum Model), and Sprint Retrospective to find improvement points. Tracked project progress and visualized workload using a Burn-Down Chart.
- Packaged and deployed the platform on the server. Configured domain name services through Alibaba Cloud and modified nginx configuration files to ensure users can access the platform through a specific domain name.

FoodRecipe | HuggingFace

Singapore

Analyzing dish ingredients based on deep learning, Deep Learning Team Member

May 2022 - July 2022

- Used Python scripts to convert videos into images.
- Trained the ResNet-15 model to successfully identify dish ingredients with a success rate of 92%, helping users analyze the nutritional content.
- Used the ShuffleNet model to identify cooking steps and integrated it into the application to notify users when a step is completed and to proceed to the next step.
- Uploaded the model to the server and interacted with users through Flask.