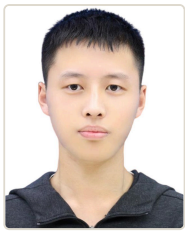
RESEARCHER / DEVELOPER

Meng Shuai.



M.S. student in Software Engineering • PRiSE Research Group, AHPU

mengshuai2024@qq.com me.xxzz.life ↗ GitHub / WhiteRain2 ↗

I study intelligent software engineering and API recommendation for novice programmers, focusing on recovering programming intent from incomplete natural-language queries. My engineering work spans AI product prototypes and business systems.

01 Education

M.S. in Software Engineering

Sep 2024 — Present

Anhui Polytechnic University

Focus: intelligent software engineering, API recommendation, and LLM-assisted development.

B.E. in Data Science and Big Data Technology

Sep 2020 — Jun 2024

Anhui Polytechnic University

President of the Computer Association; organized programming and computing outreach activities.

02 Publications & Research

Published work and submitted manuscripts

IOCAPI — Published · 2026

API Recommendation for Novice Programmers: From Clear Expressions to Effective Results

IEEE Transactions on Reliability / **Second author and corresponding author**

IOCAPI clarifies programming intent through user-confirmed I/O examples. Its Intent Detector, Code Generator, and Task Bridger connect LLM-based clarification with code-model generation to deliver API recommendations and interpretable code examples. Evaluation combines three datasets with a user study covering seven programming tasks.

2026 · Vol. 75 · pp. 991–1005 · DOI: 10.1109/TR.2026.3664018

CoLAR — Revised and resubmitted · Sep 2026

CoLAR: API Recommendation for Novice Programmers via Retrieval-Guided Multi-Path Consensus Aggregation

IEEE Transactions on Services Computing / **First author**

CoLAR retrieves related Q&A examples to guide multiple reasoning paths, then ranks catalog-resolved API candidates using cross-path recurrence and query–documentation similarity. Consensus is an inference-time ranking signal, with no additional consensus model trained. Evaluation covers BIKER-Dataset, APIBENCH-Q, and ReSO-GitBench; gains vary by dataset and metric, and agreement does not guarantee correctness.

CoHAPI — Submitted · Apr 2026

API Recommendation for Novice Programmers with Consensus Learning using Heterogeneous Information

Automated Software Engineering / **Second author and corresponding author**

CoHAPI trains source-specialized recommendation branches on Stack Overflow Q&A and GitHub code comments. It combines rank-fusion consensus with a contrastive-learning semantic validator to rerank Java API candidates for incomplete natural-language queries. Evaluation on two public benchmarks examines the value of these complementary information sources.

03 Projects & Engineering

AI Alumni Time Machine

2026 - Present

Project lead

- Led product planning, architecture, core feature development, and team coordination for an interactive AI alumni-service prototype.
- Designed workflows for youthful portraits and campus-scene fusion, historical group-photo retrieval, and personalized commemorative content.

AI image generation · face retrieval · interactive web system · product prototyping

time.ahpuprise.com ↗

Warehouse MES Management System

May 2025 - Nov 2025

Java development internship • Core developer

- Built inventory, inbound/outbound, and operational visualization modules for a warehouse MES using Spring Cloud and Vue 2.
- Contributed database models and API logic for material batch tracking, stock alerts, and warehouse reporting.

Spring Cloud · Vue 2 · microservices · inventory management · data visualization

04 Leadership & Service

President, Computer Association

Organized programming lectures, freshman outreach, contest explanations, computer-maintenance volunteer services, and community technology activities.

Computer Maintenance Volunteer Service

Participated in and organized public-interest technology services that connected computing skills with campus and community needs.

05 Selected Honors

- National First Prize, Computer Competency Challenge - C Programming 2022
- National First Prize, Computer Competency Challenge - C Programming 2021
- Second Prize, Anhui College Student Network and Distributed System Innovation Design Competition 2025
- Second Prize, Lanqiao Cup Anhui Provincial Contest
- Provincial Second Prize, Python Programming
- Bronze Award, University Youth Volunteer Service Competition

06 Research & Engineering Skills

Research Intent clarification · Semantic retrieval · Multi-path consensus aggregation · Heterogeneous information learning

Engineering Java · Spring Cloud · Vue 2 · Microservices · Data visualization