

Yifei Liu (Tobi)

Personal Strengths: Fullstack & DevOps / AI Agent / Data Engineering / Game Dev

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WORK EXPERIENCE

Check24 Fullstack with DevOps

May 2025 - now | Site

Germany's largest price comparison website.

Java Vue Atlassian Kubernetes Docker Hetzner Jib Terraform Ansible

- Task Force Team & Backlog Team.
- Later selected to join the Rewriting team for the baufinanzierung project, working on infrastructure construction and fullstack DevOps.

Anyhelper Fullstack

May 2023 - April 2025 | Site/Remote

Python Go Selenium PHP React GoDaddy Tencent Cloud

- Built an AI Agent-integrated headhunter service from scratch.
- Built landing pages, CRM, talent system, customer secret key system, chatbot server, WeChat AI customer service, and heartbeat system.

FullGeek Backend

July 2023 - April 2024 | Remote

A studio formed with computer science students from other universities during my undergraduate studies.

Java Golang GitHub MySQL Postgres

I was responsible for:

- Backend development
- Provided development services for clients, such as Keyuan Library, mock exam system, tutoring app, etc.

EDUCATION

Technische Universität München M.Sc. Informatik & Games Engineering

2024.04 - Present | Munich, Germany

- Led game production teams for three consecutive semesters; selected to present at Demo Day.

Gdansk University of Technology B.Sc. Data Engineering

2020.10 - 2024.01 | Gdansk, Poland

- Graduate's Gold Badge recipient
- President's Scholarship recipient for four consecutive years

TECHNICAL SKILLS

Backend: Spring Boot, Go, Flask

Frontend: Vue

DevOps: Docker, Kubernetes, CI/CD, Traefik, Ansible, Terraform

RPC: RESTful, GraphQL, Dubbo-Triple, gRPC

Databases: SQL & NoSQL, Data Warehouse, Big Data Platform

Game Development: Unity

Tools: Git, Jira, Figma, mise

AI Tools: ChatGPT, Codex, Copilot, Gemini (Nano Banana 2), Claude Code, Claude Design, Antigravity, Cursor, Windsurf, 极梦(Seedance, Seedream), OpenClaw

LANGUAGES

Chinese (Native) English (Fluent)

PROFILE

Full-stack engineer with strong backend, DevOps, data engineering, and AI Agent implementation experience. I am comfortable turning ambiguous product ideas into working systems, connecting LLM/agent capabilities with real business workflows, and owning the engineering path from architecture and APIs to deployment, automation, and operations.

PROJECTS

<https://project.liuyifei.tech>

Agentflow

2026.04.25 - now

Bun TypeScript React Vite Desktop App CLI Agent Orchestration Self-Evolving Agent

- Ongoing project.
- Building an agent workflow orchestration tool using **Bun**, **TypeScript**, and **React/Vite**, with a CLI entrypoint, server layer, bridge layer, and reusable workflow graph models.
- Designed the architecture for binary packaging into desktop and terminal programs, so workflows can be run from a local UI or command-line environment.
- Planning to add a self-evolving agent that observes workflow execution history and provides optimization suggestions for future workflow design.

PDE-Transformer-TTT

2026.04.09 - now

Test-Time Training PDE-Transformer Partial Differential Equations Physics Simulation

- Ongoing project.
- Ongoing master's thesis at **TUM Thurey Group Laboratory, Physics-based Simulation**.
- Proposing PDE-Transformer-TTT by integrating test-time training layers into Transformer models for solving partial differential equations, reducing the dimensionality of attention mechanisms, and supporting adaptive physics simulation.

CHECK24 - Baufinanzierung Replatforming

2025.09.01 - now

Java Spring Boot Vue CI/CD Kubernetes Docker Jib LLM Code Review Playwright Terraform Ansible Hetzner Atlassian

- Worked on the Baufinanzierung replatforming team, building infrastructure and delivery workflows across **Java**, **Spring Boot**, and **Vue** services, including **CI/CD**, container image builds with **Jib**, deployment automation, and **Kubernetes**-based operational support.
- Developed business logic for user financing-condition changes using Git-like patch / head / branch concepts, covering concurrent user / agent updates, change tracking, and related bank response package handling.
- Implemented **Vue** financing-package card features, integrated LLM-based code review into the **CI/CD** pipeline, added **Playwright** E2E tests, and reduced CI runtime from about 8 minutes to about 3 minutes.

Onlyone

2026.03.20 - now

Go DDD WebSocket Realtime Event Tencent COS Asynq PostgreSQL Redis APNs Async Tasks Push Idempotency Volcano Engine

- Led the **Go** backend using a **DDD** / ports-and-adapters structure: HTTP / WebSocket interfaces call application **InboundPort** use cases, domain entities and **OutboundPort** contracts stay persistence-agnostic, and infrastructure adapters implement PostgreSQL, Redis, COS, asynq, APNs, and Volcano Engine integrations.
- Built **WebSocket** realtime event capabilities for chat, typing, read receipts, online/offline state, and partner message delivery, coordinating persisted messages with offline **APNs** push notifications.
- Implemented **Tencent COS** media upload consistency with presigned upload, confirmation, timeout recovery, and **Redis**-backed queues; built an **asynq** task system integrated with **Volcano Engine** visual generation for retries, state transitions, failure repair, and result notification.

AI Headhunter System

2023.05.01 - 2025.04.30

Python Golang AI Agent RPA Selenium Resume Parsing Workflow Automation

- Designed and developed an AI-driven recruitment system with **Python** and **Golang**, covering JD parsing, candidate search, resume mapping, outreach automation, screening, and report generation.
- Combined **AI Agent** capabilities with **RPA** / **Selenium** workflows to improve candidate sourcing, initial screening, follow-up, and knowledge capture across the recruitment pipeline.

Online Library System

2024.01.30 - 2024.02.28

Spring Boot Vue MySQL Solr RBAC PDF/ePub IP Access Multi-level Deployment LCC/CLC Mapping Similarity Matching

- Designed and built an online library system with **RBAC** for administrators, organization managers, and readers, plus **PDF/ePub** online reading and download control.
- Implemented search and deployment with **Spring Boot**, **Vue**, **MySQL**, and **Solr**, and optimized interaction and hot-path performance under constrained server resources.
- Built recursive LCC-to-CLC category mapping and Chinese / English name alignment using similarity matching over hierarchical JSON taxonomy data.

Pokemoney

2023.07.15 - 2023.11.30

Flutter SQLite Dubbo Nacos Higress Redis MySQL ShardingSphere Kafka Spark Hive NiFi HBase Docker

- Designed and built an accounting app with **Flutter** and **SQLite**, supporting offline/online modes and multi-device synchronization across accounts, ledgers, categories, and sync-sensitive workflows.
- Developed backend services with **Dubbo**, **Nacos**, **Higress**, **Redis**, and **MySQL/ShardingSphere**, and integrated **Kafka**, **Spark**, **Hive**, **HBase**, **NiFi**, and **Docker** for data pipeline experiments.

Toutiao Post Automation Client

2024.09.01 - 2024.09.23

Qt C++ Selenium BitBrowser Automation GUI Multi-threading

- Built a desktop automation client with **Qt/C++** to manage Toutiao article posting workflows through **BitBrowser** debugging sessions and configurable publishing tasks.
- Separated GUI and automation logic into worker threads, using **signal/slot** communication to keep the client responsive while driving browser actions and reducing manual publishing work.

Drone Simulation + GIS Monitor

2023.06.01 - 2023.06.07

Unreal Engine AirSim Cesium Node.js UDP CesiumJS Google 3D Tiles GIS

- Built a real-time UAV simulation and GIS monitoring platform by integrating **Unreal Engine**, **Microsoft AirSim**, **Cesium for Unreal**, and **Google 3D Tiles** for geo-accurate simulation scenes.
- Streamed multi-camera drone video via **UDP** to a **Node.js** backend, then visualized GPS telemetry, camera frustums, and live camera feeds in a **CesiumJS** web dashboard.

AI DevOps Course Project: AI-HR

2025.04.01 - 2025.07.08

Spring Boot React Python LangChain PostgreSQL pgvector RAG gRPC Docker Kubernetes Traefik Terraform Ansible

- Designed a microservices-based intelligent recruitment platform supporting job management, resume screening, AI interviews, and automatic scoring.
- Implemented AI services using **Python**, **LangChain**, **RAG**, and **PostgreSQL/pgvector** for resume semantic matching, interview question generation, and candidate recommendation, with **Docker** / **Kubernetes** deployment support.

Catalysm Cards

2024.10.15 - 2025.01.30

Unity DOTS ECS Unity Physics Shader VFX

- Developed a real-time action card battle game utilizing **Unity DOTS/ECS** and **Unity Physics** for a highly performant reaction-chain combat system.
- Designed the core project architecture, implemented trigger and element residue systems, and rewrote **VFX Shader** logic to support the **DOTS** pipeline.

Heaven Or Hell

2025.04.15 - 2025.07.10

Unity C++ KCP Protobuf Game Server Realtime Sync PCG

- Developed an asymmetrical 2D PvP multiplayer online game featuring maze-based soul vs. reaper gameplay using **Unity**.
- Built a custom **C++** game server integrating **KCP** and **Protobuf** for reliable real-time networking, alongside procedural map generation and core gameplay mechanics.

Escape From Pavlov

2026.01.01 - 2026.01.26

Unity C# FSM Blackboard NavMeshPlus OpenAI GPT-4.1 CosyVoice WebSocket TTS PCG Fog of War

- Built a **Unity** stealth game with guard AI driven by **FSM** and shared **Blackboard** coordination for patrol, search, alert, and chase behavior.

- Integrated **GPT-4.1** dialogue and **CosyVoice WebSocket TTS**, adding context-aware NPC conversations and real-time voice playback.
- Implemented **BSP**-based procedural maps, **NavMeshPlus** navigation, and a texture-driven **fog-of-war** minimap.