Dianhai Wang

AI Systems & Agent Engineer

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Professional Summary

Software engineer with 11 years of experience, a Go/PHP backend foundation, and recent Python and TypeScript agent development. Combines order, payment and subscription experience with RAG, tool calling, task recovery and model usage accounting. Delivers applications from requirements and API design through frontend integration and deployment.

Technical Skills

Agents: Python, FastAPI, LangChain, LangGraph, DeepAgents, Pi SDK, tool calling, structured outputs.

Retrieval: PostgreSQL, pgvector, full-text and vector search, RRF, access filtering, source references.

Backend: Go, Gin, go-zero, PHP, Laravel, Hyperf, MySQL, Redis, transactions, payment integration.

Delivery: Vue 3, TypeScript, WeChat Mini Programs, Linux, Docker, Nginx, Git, API integration.

Recent Project Experience

- **Oracle Data Assistant**: Combined rules and model candidates with deterministic plan validation and fallback; used offline regression sets for standard and paraphrased questions.
- **B2B Sales Lead Workflow Toolkit**: Built two independent Python prototypes and ran lead cleaning on 5,000 synthetic records, combining model-assisted matching with rules and reviewable exports.

Selected Agent Projects

Sales Knowledge Agent

Python / FastAPI / DeepAgents / LangGraph / PostgreSQL / pgvector

Built a sales assistant for objection handling, follow-ups and conversation reviews, with quick answers, four-part action plans, a WeChat Mini Program and a Vue admin console.

- Combined full-text and vector retrieval using RRF. Applied content entitlements and publication status in SQL so unauthorized content stays out of model context.
- Restricted tools, retrieval calls and execution steps by stage. Used structured delivery fields and server-resolved references for answers, clarification and refusal.
- Implemented staged recovery with a PostgreSQL task queue and persisted plan sections. Saved request policy snapshots and rechecked access rights during recovery.
- Persisted model usage by call ID; handled fallback-model pricing, cancellation and duplicate accounting. Backend regression suite: 753 non-live tests passed.

Oracle Fiscal Data Assistant

Personal project | TypeScript / Fastify / Pi SDK / Spring Boot / Oracle 10g

Connected to a real Oracle 10g database for budget, payment, plan execution and balance queries.

- Parsed questions into structured QueryPlans and executed approved SQL templates through a business semantic layer. Requested clarification and user confirmation before execution.
- Decomposed complex questions into multiple queries and calculations; consolidated evidence and exposed parsing and execution progress through SSE.
- Bound user confirmation to a plan hash. Added read-only execution, sensitive-field protection, audit logs and CSV export; distinguished real data from mock results.

Work Experience

Guangzhou Yunxi Guangnian · Full-Stack Software Engineer · Oct 2025 - Sep 2026

- Developed cloud-phone orders and payments, integrated international payment channels, and built DeepSeek-based Telegram lead screening and task automation.
- Integrated UPay and Payssion. Handled callback validation, amounts, currencies and order states; used transactions and conditional updates to prevent duplicate crediting.
- Worked on cloud-phone purchases, renewals, expiry and refunds; investigated inconsistencies between payment and resource states.

Independent Development · AI Applications · Mar 2025 - Oct 2025

- Built a product RAG assistant with FastAPI and LangChain/LangGraph, plus applications combining story, image and speech generation.

Guangzhou Lianfei Network Technology · Go Backend Developer · Apr 2022 - Dec 2024

- Developed cross-border purchasing, carts and two-tier distribution; migrated services to go-zero and contributed to transaction workflows, IM support and warehouse picking.

Guangzhou Banchengyun Information Technology · PHP Developer · Jun 2019 - Jan 2022

- Developed SaaS orders, payment, fulfillment, after-sales and reporting; integrated marketing plugins and third-party ticketing services.

Automation and Network Projects

Cloud Phone and Android Automation Agent

Python / FastAPI / Claude Code SDK / Vue 3 / AutoJS / ADB / Node.js

- Implemented plan confirmation, AutoJS generation and execution with device previews. Used execution errors and logcat feedback to repair scripts with limited retries.
- Built a cloud-phone plugin with session-bound devices and environments, ADB, screenshots and task APIs; supported Skill context loading and operation timeouts.

Network Proxy and Video Stream Forwarding

Go / Gin / GOST / Caddy / WebSocket / AWS Global Accelerator

- Managed multi-hop forwarding chains, proxy mappings and port pools through GOST APIs, with connectivity checks, traffic collection and status synchronization.
- Built a Caddy/Go WSS proxy with cloud-phone session caching, bidirectional video stream forwarding, heartbeat handling and connection timeouts.
- Developed a SOCKS5 gateway integrated with AWS Global Accelerator, including quotas, traffic billing and usage reporting through Outbox and RabbitMQ.

AI Development and Knowledge Sharing

- Uses Codex, Claude Code and Cursor for AI-assisted development, with practical work on harnesses, context and tool workflows.
- Contributed sales-training, cross-platform price-comparison and product-sourcing skill packages to Workbuddy.
- Led team training on AI tools and skills, sharing application methods and project experience.

Education and Certification

Zhengzhou Economic and Trade Vocational College | Diploma in Financial Accounting | 2007 - 2010

College English Test Band 4 (CET-4)