

# ChingYao Wang

Senior Full Stack Developer | AI Application Engineer | Web & Mobile Product Engineer

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## PROFESSIONAL SUMMARY

I am a Full Stack Developer who has been creating various forms of web apps and mobile apps, as well as internal management tools and AI-based business tools, for more than 10 years.

My main frontend stack is React, Vue, Next.js, Typescript and Javascript. I have experience building for the PC web, mobile H5, responsive layouts, admin dashboards, Flutter Mobile / React Native / WebView-based app functionality, etc. On the back end I have hands-on experience working with Node.js, PHP, Python, Java & Spring Boot for things such as API design, authentication, database design, business services, integration with third parties, and deployment support.

Many of my projects have been oriented toward practical business systems, including: SaaS products; enterprise operating platforms; e-commerce & retail systems; CRM services; data dashboards; mobile working tools; knowledge base systems; and internal automation systems. In recent years, I have also worked on AI-related product features, including AI agents, RAG-based knowledge assistants, prompt workflows, internal AI tools, and AI training for developers and business teams.

I enjoy developing real products closely aligned with users' real needs. I'm concerned with why a feature exists, how end-users will interact with it, and how to design something that teams can maintain post-launch. I comfortably transition between software development (front-end vs back-end programming) and software deployment production support (addressing bug issues related to product releases).

## BASIC SKILLS

|                   |                                                                                                                                               |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Frontend          | React, Vue 2/3, Next.js, TypeScript, JavaScript, HTML5, CSS3, Less, Sass, responsive layout, mobile-first UI, component-based development     |
| Backend           | Node.js, Express, NestJS, PHP, Laravel, Python, FastAPI, Java, Spring Boot, RESTful API, authentication, background jobs, service integration |
| Mobile            | Flutter, React Native, H5 mobile pages, WebView integration, mobile compatibility, app-side business modules                                  |
| Backstage Systems | Admin dashboards, RBAC permission control, complex tables/forms, workflow pages, reporting modules, ECharts, operation tools                  |
| Data & Infra      | MySQL, PostgreSQL, MongoDB, Redis, SQL optimization, data modeling, caching, Docker basics, CI/CD support, cloud deployment                   |
| AI Development    | AI agents, RAG workflows, vector search, embeddings, prompt engineering, tool/function calling, workflow automation, knowledge assistants     |
| AI Coding Tools   | Cursor, GitHub Copilot, ChatGPT, Claude/Claude Code workflows, prompt-based coding, code review assistance, documentation drafting            |
| Work Practices    | Git workflow, code review, API documentation, agile delivery, cross-functional communication, developer training, technical documentation     |

## EDUCATION

Minghsin University of Science and Technology · Bachelor's Degree in Computer Science

2011.09 – 2015.06 · Hsinchu County, Taiwan

I hold a Bachelor of Science in Computer Science where I studied a variety of topics related to Programming, Database Systems, Web/Software Engineering and Computers/Networks/Applications Development. I took the following main courses:

- Core courses: Data Structure's, Database System's, Networking Technologies, Operating System's, Software Engineering, Object Oriented Programming, Web Development
- Graduation focus: web application development, backend data handling and user-facing interface implementation.

# AI DEVELOPMENT & AI CODING EXPERIENCES

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There are two practical applications of AI I utilize in my professional life:

- Developing features for AI based products;
- Streamlining day to day development processes through the use of AI.

As part of my experience developing features for products that incorporate AI, I have worked on AI agent workflows, a RAG-style knowledge-base assistant, prompt templates, automated tool calling processes, answer review processes/improvements (internally), and creating internal automation tools. All of these products and processes were intended for business use and included not only providing AI with the ability to respond, but also establishing appropriate processes regarding permission, traceability, source reference, human review, and safe usage of internal data.

I utilize technologies like Cursor, GitHub Copilot, ChatGPT, and Claude-style workflows to facilitate repetitive development activities at the engineering level, such as establishing component drafts, API handler samples, TypeScript types, generating test cases, providing database query samples, producing documentation, and providing suggestions for refactoring. I do not rely solely on the output generated by these AI technologies; I always perform a manual review of final code prior to moving into production, including reviewing business logic, security boundaries, data privacy, and error handling, as well as ensuring correct code style.

I have worked with both engineers and non-technical team members on how to responsibly use AI tools, including developing prompt-writing processes that enable them to write better prompts, how to validate the output generated by AI tools, how to keep sensitive data from being exposed in their use of AI, and finally, how to convert suggestions produced by AI into maintainable work product

## WORK EXPERIENCE

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### Senior Full Stack Developer / AI Application Engineer — Appier

2022.08 – 2026.02

*React · Vue · Next.js · Node.js · Python · Java Spring Boot · AI Agent · RAG · Admin Systems*

I developed a software platform that has a business workflow management component and provides tools to automate internal processes and enhance employee productivity through the use of artificial intelligence tools. The software includes desktop web, mobile web, backstage administrator interface, knowledge base search, agent workflows, and reporting pages.

- My responsibilities involve front-end and back-end development work, including developing the UI, defining the API, creating data models, designing AI workflows, and debugging in production.
- I created both web and mobile features for customers using React, Vue, and Next.js like dashboards; workflow pages; user centers; data views; and configuration pages
- I also created backend services using Node.js, Python, and Java Spring Boot to handle services for user management; workflow execution; providing notifications; synchronizing data; and AI API calls.
- I built AI Agent features that allowed the creation of prompt templates; calling of different tools; accessing knowledge bases; summarisation of tasks; generation of drafts; and performing human review on drafts.
- I also had the opportunity to work with RAG Style Knowledge Base Assistants that provided searchable access to multiple documents, FAQs, and internal operational documents.
- As part of the backstage management system, various module for roles and permissions, team settings, workflow configuration, audit logs, AI prompt templates and usage records were developed.
- Using AI coding tools to accelerate the processes of constructing component scaffolding, creating API drafts, generating refactoring ideas, generating test-case outlines, documenting and preparing code for review.
- Internal training was provided to developers and business users on how to use the AI tools, create prompts, verify the output from the AI tools, and use the internal data in a responsible manner.

#### Key achievements:

- ✓ Worked on delivering AI driven workflows that will minimize repetitive manual labor for all the teams in the building.
- ✓ Developed re-usable full stack components for forms; Wraps; Permission Objects; API Services; and AI configuration pages.
- ✓ Increased the speed of delivery of development by combining real world engineering principles with AI driven workflows to create a more efficient process.
- ✓ Created and distributed internal notes and training sessions to enable non-technical users to use AI assistants more safely and effectively.

## Full Stack Developer — TPIsoftware

2020.05 – 2022.07

*React · Vue · Node.js · Java Spring Boot · PostgreSQL · Redis · Admin Dashboard*

As a Full Stack Developer, this role encompassed all aspects/functions of enterprise digital transformation products (e.g., building, designing, developing) for internal management systems, approval workflows, reporting dashboards, and tools used by different departments to perform operations. Additional requirements for these projects included reliable permission control management (RBAC), strong medical backend services, and effective data management.

- Developed the admin dashboard and internal systems using React, Vue, and TypeScript.
- Created backend APIs (Node.js and Java) for user-role assignment, department data management, file record maintenance, and reporting.
- Implemented role-based access control (RBAC), created menu configurations, created audit logs, created operation logs, and established data access rules.
- Built complex table/grid and form components with search/filter functionality, export to various formats, batch operate, dynamic fields, and multi-stage submissions.
- Utilized PostgreSQL, MySQL, and Redis to store and cache business data, as well as improve performance.
- Design drive for API development; backend troubleshooting; performance optimization; production issues.

### Key achievements:

- ✓ Standardized repeated admin page designs; reduced time spent developing subsequent modules.
- ✓ Increased visibility of internal processes by using dashboard(s) to highlight process flow and workflow tracking pages.
- ✓ Improved maintainable by creating a separation of concern between business logic, API services, and reusable UI components.

## Full Stack Developer — SHOPLINE

2018.03 – 2020.04

*Vue · React · PHP · Laravel · Node.js · Flutter · React Native · MySQL*

I gained experience in e-commerce, retail operations (e.g. apps used by stores), membership systems (e.g. the use of Pay-As-You-Go Membership) and cross-platform mobile apps. I worked on both customer-facing pages and modules in mobile apps and tools for employees working in the store as well as services that power the order, product, coupon and membership workflows out of the back-end.

- Developed product list, product detail, shopping cart, order confirmation, payment result, membership center and coupon pages.
- Built the back-end APIs in PHP/Laravel and Node.js that power product management, order processing, coupon usage, and user profiles (for membership point accumulation) and the operation configuration of these items.
- Developed mobile app modules using Flutter and React Native for tools used by retail employees, activity pages for members and WebView-based pages created for doing business on the web.
- Built tools for retail operations to create the order, product configuration, inventory status, coupon rules, campaign management, and various records used by customer service.
- Integrated third-party services for payment processing, SMS verification, document uploads and basic analytics to support these apps.
- Improved mobile app response times through lazy-loading images, optimizing image sizes before they are sent over the Internet, making API responses faster and making the user-interface clearer.

### Key achievements:

- ✓ Improved purchase process and membership process by removing unnecessary page hierarchy and states that were confusing to the user.
- ✓ Developed reusable components for e-commerce and also for mobile apps that could be used for all future campaigns and regularly used for retail operations.
- ✓ Developed experience integrating web with mobile.

## Web Developer / Junior Full Stack Developer — Galaxy Software Services

2015.07 – 2018.02

*PHP · Java · Node.js · Vue · jQuery · MySQL · CRM · Reporting Systems*

This was the foundational stage of my full-stack career. I started with business-related web systems, then moved on to developing frontend components for those systems, followed by developing APIs for backend components, developing database-related programming for all of them, and developing internal tools for use by the development team. This experience has helped me develop strong habits surrounding reliability, clear data flow, and maintainable programming code.

- Developed individual modules for a CRM system that included functionality for storing customer records, customer follow-up records, storing contract-related information, storing task reminder dates, and generating various business reports.
- Developed multiple types of backend functionality using PHP, Java, and Node.js, including the development of CRUD APIs, authentication, file uploads, export of tasks, and scheduled jobs.
- Created multiple frontend pages using Vue.js, jQuery, and traditional HTML/CSS with hopes of achieving full componentization of all pages.
- Used MySQL for designing tables, performing SQL queries, creating basic indexes, and extracting data needed for generating reports.
- Provided bug-fixing services for business users, provided testing and successful implementation of the application, provided business users with a process for feedback about the application, and performed daily maintenance on the application.

#### **Key achievements:**

- ✓ I have built a solid foundation in full-stack business database design and development, especially forms, tables, user permissions, reports, and data workflows.
- ✓ I've learned how to effectively communicate with business users, and convert vague business requirements into working system functionalities.
- ✓ I have also developed a practical methodology for designing an application with respect to maintainability, debugging, and long-term usability.

## **PARTICIPATED PROJECTS**

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### **AI Workflow Automation & Agent Platform (2022.09 – 2026.02)**

*Next.js · React · Node.js · Python · AI Agent · RAG*

As a part of this project, we have created a platform that automates workflows associated with repetitive/re-occurring business tasks; this includes but is not limited to document processing, knowledge finding, and initial draft creation. The intention of the platform is to provide support to humans in creating the first draft of their work while ultimately allowing them to finalize and approve the draft.

- Worked with both Next.js and React to deliver fully functioning workflow front-end pages such as agent task lists, agent configuration, editing templates for prompts, execution history for agent tasks, and review pages.
- Created backend APIs that allow for the creation of workflows, execution of agent tasks, document parsing, agent logging, managing user permissions, and storing the results of agent output.
- Incorporated AI agent steps including planning, retrieval of external information, tool execution, summarizing, creating drafts, and obtaining humans to approve drafts into workflow processes.
- Developed pages to view the use of the application, including viewing failed tasks, retrying tasks, and tracking updated versions of prompts.
- Provided assistance in creating guidelines for prompt creation, prompt review guidelines, and safety checks for using AI internally.

### **Knowledge Base RAG Assistant & Internal AI Training (2023.03 – 2026.02)**

*Vue · Python · FastAPI · Vector Search · Training*

The objective of this project has been to create an internal knowledge assistant to support team members in accessing information extracted from internal documents (such as policies & procedures), product FAQ, operations Manual, technical Notes, etc. I also trained all participants who would use the AI Assistant and coding tools, so they would know how to use those tools more effectively.

- Developed search/chat interfaces for Q&A on documents including, but not limited to lists of documents source references for where the answer was found in the document, answer Assessment/Feedback, administrative configuration.
- Developed back-end services for uploading documents, parsing documents, chunking documents, storing document metadata, retrieving documents, generating answers to questions based on document contents.
- Developed administrative pages for knowledge base categories, access permissions and document versioning, document feedback review.
- Conducted internal training on, writing effective prompts, verifying AI output, understanding privacy policies/regulations, using AI coding tools, avoiding common mistakes with AI.
- Provided developers, product managers, and operations staff with examples of how to use these tools.

## Enterprise Backstage Management & Workflow Platform (2020.05 – 2022.07)

*React · Vue · Java Spring Boot · Node.js · PostgreSQL*

The Enterprise Backstage Management and Workflow Solutions platform is an internal solution used across multiple business departments to manage employee roles, approval workflows, department operations, file records, and business configurations. The platform manages employee roles and provides approval processes across multiple departments, which makes it very important to have controls over permissions and the proper handling of data.

- Developed user management, department management, roles/permissions, menu configuration, approval workflow, and operational log modules for the platform.
- Built back-end APIs to manage changes in workflow status, permission checks, file records, notifications, and reporting data.
- Created dynamic forms to handle complex business processes that manage forms with validations, multi-step submissions, and the ability to upload files.
- Built reusable admin component libraries for tables, filters, forms, modals, drawers, and detail pages.
- Implemented back-end optimizations to decrease unnecessary queries to the database and cache frequently accessed configuration data to improve overall performance.

## Business Report & Data Dashboard System (2021.01 – 2022.07)

*Vue · ECharts · Node.js · Spring Boot · PostgreSQL*

Business reports and dashboards were provided to business teams to be used for daily operations, effective performance evaluation, and management decision making.

- Pages with dashboards were created, having rich trend charts, summary boxes, ranking lists, comparative views of values, and the ability to export.
- Aggregated APIs that provide aggregations of sales-like indicators, workflows, users, and department-level metrics were created.
- Scheduled jobs were created to generate reports and sync data periodically.
- Based on permission levels, different roles have been assigned permissions to only access specific reports.
- Optimized chart loading and API responses so that dashboards could remain usable in typical office networking.

## E-commerce Membership & Retail System (2018.03 – 2020.04)

*Vue · PHP · Laravel · Node.js · MySQL*

This project was focused on providing an e-commerce site that supports online sales through memberships & coupon campaigns to retail operations with back end management tools.

- Developed product lists, product detail pages, shopping carts, order confirmation pages, membership center pages, and coupon pages.
- Developed back end services to support product data, order records, coupon rules, member point data, user profiles, and campaign configuration.
- Developed admin pages to support product management, coupon rules, content banners, and search for orders because of customer service notes.
- Integrated payment callbacks, SMS verification for authentication, and file upload services.
- Enhanced page loading times by implementing image optimization, lazy loading, and improved API responses to reduce the amount of downloaded data to the browser.

## Cross-platform Mobile Retail App (2019.01 – 2020.04)

*Flutter · React Native · H5 · WebView · Node.js*

Mobile application built for both retail staff and customers, blending the best of both worlds by providing fast campaign information updates through native-like screen designs and embedding HTML5 pages.

- Created mobile view pages (login, user center, message center, activity entry, order status, and basic staff operational tools)
- Used Flutter and React Native for the application modules and embedded HTML5/WebView for HTML5 pages that constantly change in size.
- Implemented token handing, login state syncing, navigation callback handling, and app-to-HTML5 communication.
- Supported both Android and iOS compatibility test cases and resolved layout issues related to the same page being displayed on different screen sizes.
- Reused HTML5 campaign pages within the application to reduce repeated development efforts.

## CRM and Business Data Management System (2015.07 – 2018.02)

PHP · Java · Vue.js · Node.js · MySQL

The goal of this project was to develop an internal, customer relationship management (CRM) and business data management (BDM) tool to maintain customer contact, follow-up records, contracts, tasks, and reports.

- Developed customer listing and detail pages, follow-up records, contracts, task reminders, and report pages.
- Designed back-end APIs to allow for the creation, editing, searching and exporting of data; identification and creation of user credentials; and generation of scheduled reminders.
- Assisted in the design of MySQL tables, development of SQL queries, extraction of report data, and use of simple indexes.
- Assisted with the maintenance of pre-existing pages as I transitioned some of them to "Vue" components.
- Worked with customers to define processes for completing tasks and used this feedback to create better ways of capturing and processing business data.

## ADDITIONAL INFORMATION

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|--------------|---------------------------------------------------------------------------------------------------------------------------------|
| Languages    | Chinese (native) · English (professional working proficiency — technical documents, product and engineering discussions)        |
| Target Roles | Senior Full Stack Developer · AI Application Engineer · Web/Mobile Developer · Backend-capable Frontend Developer               |
| Work Style   | Practical, calm in debugging, detail-oriented, comfortable with unclear requirements, breaks large tasks into deliverable steps |