

20 years of software engineering experience | PayPal FinTech | AI-assisted Engineering | RAG / Agent Workflows / AI Coding

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Profile

Senior frontend / full-stack engineer with 20 years of software development experience across FinTech, travel platforms, content systems, and AI engineering. Recently working closely with PayPal engineering teams on FinTech business systems, customer identity verification, payment migration validation, and AI-assisted engineering workflows. Proficient in React, Next.js, TypeScript, Node.js, Python, FastAPI, Redis, MySQL, gRPC, as well as Docker, Makefile, Playwright, Jest, and Vitest for environment setup, automated testing, and reproducible validation.

Over the past two years, I have contributed to PayPal payment migration validation — building multi-language e-commerce test environments, automated regression processes, and validation assets around legacy API migration scenarios. I also led the 0-to-1 development of a customer identity verification platform, covering BFF APIs, permission control, security review, and production launch. I am skilled at turning frequent, loosely structured, and error-prone engineering processes into data models, command-line entry points, automated validation, and reusable tools.

My current focus is AI application engineering and LLM engineering. I have hands-on experience with RAG, Tool Calling, MCP, Prompt Engineering, Evaluation, LangChain, LangGraph, AutoGen, CrewAI, FAISS, Qdrant, and SSE streaming. What sets me apart is applying these technologies to real software engineering workflows — code analysis, environment setup, API behavior research, migration validation, E2E testing, troubleshooting, and retrospective learning — forming reproducible, verifiable, and iterable engineering loops.

Work Experience

PayPal

Full-Stack Engineer | Jul 2024 - Present

Worked on FinTech business systems and payment migration validation, covering customer identity verification, feature iteration, framework upgrades, security governance, and AI-assisted engineering.

Responsibilities

- Built automated payment migration validation workflows covering legacy payment API to modern REST API migration, test environment standardization, and issue resolution

- Used Docker, Makefile, and Playwright to build multi-language e-commerce payment validation environments supporting core payment flow regression tests and migration result verification
- Created project assets covering integration status analysis, API behavior research, migration rules, and E2E test reports to support migration decisions and issue troubleshooting
- Led the 0-to-1 design and development of a customer identity verification platform, completing BFF API, permission control, Redis caching, privacy policy management, security audit, and production launch
- Built internal debugging support capabilities for gRPC call inspection, issue reproduction, and troubleshooting workflows
- Participated in Next.js / Node.js technology stack upgrades, unit test improvements, and security scan remediation

Impact

- Transformed payment migration validation from manual investigation into reproducible automated workflows, reducing environment setup, regression testing, and issue reproduction costs across multi-language e-commerce projects
- Built API behavior research, migration rules, E2E test reports, and local execution tooling within half a year, providing engineering evidence for migration decisions and issue troubleshooting
- Delivered the customer identity verification platform from 0 to 1, completed security audit, and launched to production
- Improved core module test coverage by approximately 30 percentage points, fixed security scan and dependency risk findings, improving release stability of existing systems

Tech Stack: Python, TypeScript, React, Next.js, Node.js, Express, Docker, Playwright, Redis, gRPC, Jest, Vitest

Shanghai Quante Information Technology

Full-Stack Engineer | Jan 2024 - Jun 2024

Responsibilities

- Led frontend integration and interaction linkage for an AI digital human customer service system for a Disney resort project, achieving initial integration within one month
- Integrated existing digital human models and built web-based 3D avatar rendering, motion control, and expression states using React, Next.js, Three.js, react-three-fiber, with mobile compatibility
- Integrated Azure ASR / TTS, linking speech recognition, speech synthesis, and speech interruption with avatar speaking, motion, and expression states

Impact

- Completed the first integrated version within one month, enabling the project to proceed to the demo and validation phase on schedule
- Achieved web-based 3D digital human rendering, speech recognition, speech synthesis, and interruption interaction linkage, building reusable AI interaction engineering experience

- Delivered frontend, 3D, voice service, and real-time communication integration within a short-cycle project

Tech Stack: React, Next.js, Three.js, react-three-fiber, Node.js, Socket.io, Azure AI

Ctrip / Trip.com Group

Senior Frontend Engineer → **Staff Frontend Engineer** | **Apr 2017 - Jan 2024**

Responsibilities

- Built the department's first Node.js SSR content platform during the Ctrip travel community stage, driving the team's transition from .NET to React / Node.js
- Later led Trip.com international Blog / Destinations content platform development, supporting SEO, H5, hybrid, multilingual, and international traffic scenarios
- Handled Next.js version upgrades, bundle splitting, resource loading optimization, and SSR rendering pipeline engineering
- Continuously optimized Core Web Vitals to improve page performance and SEO; led 2-4 person frontend teams in code review, standards, and delivery, and project-led 5-7 person teams in large collaborative delivery projects

Impact

- Drove the content platform migration from .NET to React / Node.js, establishing a multi-platform delivery system covering SSR, H5, SEO, and Hybrid
- Long-term responsibility for international content channel development and performance optimization, supporting multilingual access, search engine indexing, and global user content reach
- Contributed to frontend standards, code review, and team delivery management, developing team members and improving content platform iteration capability

Tech Stack: React, Next.js, Node.js, Express, SSR, Redis, MySQL, MongoDB, React Native, Taro

Shanghai Jiuzhen Network Technology

Frontend Engineer → **Frontend Development Manager** | **Mar 2015 - Apr 2017**

A social app project built with React Native for mobile users, covering content feeds, user profiles, favorites, sharing, community interaction, and instant messaging.

Responsibilities

- Developed the React Native social app covering Android / iOS dual-platform core features
- Built profile pages, favorites, system sharing, news feeds, community, and instant messaging modules
- Managed the frontend development team and set up Jenkins multi-branch automated build pipelines

Impact

- Completed core module development for a social app, accumulating cross-platform mobile development experience with React Native

- Expanded the team's capabilities from traditional web frontend to React / React Native, reducing manual packaging and multi-branch delivery costs

Tech Stack: React, React Native, JavaScript, Node.js, Express, PHP, MySQL, Nginx, Jenkins

Actiontec Electronics

Software Engineer | Oct 2009 - Mar 2015

Hybrid mobile application development and embedded web system development for a US-based electronics company.

Responsibilities

- Developed hybrid mobile apps using Cordova, HTML5, CSS3, and JavaScript for photo management and sharing
- Contributed to mobile photo storage, synchronization, and file service integration
- Developed the MoCA router embedded web management interface
- Collaborated with US-China cross-site teams alongside hardware, embedded, and testing teams

Impact

- Completed core hybrid mobile app development, building cross-platform mobile and native capability integration experience
- Delivered the router embedded web management system, expanding skills into Linux, C, Shell, and device-side development

Tech Stack: Cordova, HTML5, CSS3, JavaScript, Dojo, Java, Linux, C, Shell, Boa WebServer, MySQL

ZTE Corporation

Software Engineer | Oct 2008 - Oct 2009

Responsibilities

- Developed and maintained the alarm module for a 3G network management platform, handling alarm task processing, status display, and system integration
- Built desktop clients using Java Swing and enterprise Java technologies

Impact

- Completed the 3G network management alarm module, accumulating experience in large-scale telecom software, enterprise Java, desktop clients, and middleware

Tech Stack: Java, Swing, EJB, JMX, JBoss, Oracle

Gksel Information Technology

Software Engineer → Technical Manager | Apr 2007 - Oct 2008

Responsibilities

- Managed a 3-person technical team, handling task assignment, technical guidance, and delivery coordination

- Developed web projects including rental websites and doctor appointment systems, covering requirements communication, backend APIs, page development, and deployment
- Built enterprise web and rich-client applications using Java, PHP, JavaScript, and Adobe Flex

Impact

- Delivered multiple web projects with a small team, building project management and client communication experience
- Expanded from Java backend to frontend rich-client and PHP web development, forming early full-stack and team management capabilities

Tech Stack: Java, Struts, Spring, Hibernate, PHP, JavaScript, jQuery, Dojo, Adobe Flex, MySQL

Jiangsu Gthinking Information Technology

Software Engineer | Apr 2005 - Apr 2007

Responsibilities

- Customized and implemented enterprise CRM systems, participating in requirements analysis, feature development, deployment, and on-site support
- Developed customer data, sales process, service records, and reporting modules

Impact

- Delivered multiple enterprise CRM projects, receiving client recognition
- Received the Outstanding New Employee award in the first year, growing into an engineer capable of independent module ownership and mentoring new team members

Tech Stack: Java, JavaScript, Struts, Tomcat, MS SQL Server

Selected Projects

AI-Assisted Payment Migration Validation and Engineering Automation

2026 | Python, TypeScript, Docker, Playwright, Makefile, PayPal APIs

Built automated migration tooling, multi-language e-commerce test environments, and validation assets for PayPal legacy payment API migration scenarios.

- Built multi-language e-commerce payment test environments covering PHP, .NET, Java, Node.js, Ruby, and Python stacks, including order placement, redirect, callback, and order status verification
- Participated in migration tooling and local execution workflow development, organizing integration scenario detection, migration execution, functional validation, and issue resolution into reproducible steps
- Used Docker, Makefile, and Playwright for E2E regression tests, API behavior research, migration rules, and test reporting
- Documented payment entry points, callback handling, order status updates, and configuration dependencies across sample projects, producing integration status analysis, run instructions, and migration validation checklists

Customer Identity Verification Platform

2025 | Next.js, Node.js, Express, Redis, BFF API

Built an independent customer identity verification system for FinTech identity verification and compliance scenarios.

- Built the business system based on a Next.js / Node.js BFF engineering template, covering frontend pages, BFF APIs, service integration, Redis caching, permission control, privacy policies, and user consent records
- Implemented privacy policy display, user consent tracking, and identity verification flow integration with status feedback, ensuring traceable and auditable business processes
- Completed security audit, test coverage improvement, and launch validation, delivering a full-stack FinTech system to production

Disney AI Digital Human Customer Service

2024 | React, Next.js, Three.js, react-three-fiber, Socket.io, Azure ASR / TTS

Built a 3D AI digital human customer service frontend for a Disney resort project, integrating voice interaction, real-time communication, and mobile compatibility.

- Used React, Three.js, react-three-fiber for web-based 3D rendering, motion control, and mobile adaptation
- Integrated Azure ASR / TTS, Socket.io, and speech interruption logic for voice input, voice playback, and avatar animation linkage
- Handled model rendering, animation state switching, page interaction, performance, and mobile WebGL compatibility
- Completed the first integrated version within one month, supporting project demos and subsequent validation

Trip.com International Content Platform

2017 - 2024 | React, Next.js, Node.js, Express, SSR, SEO

Project Link: [Trip.com Blog](#)

Built Trip.com international Blog / Destinations content platforms serving global users, demonstrating complex frontend platform engineering, SSR, and long-term product iteration.

- Drove the team's transition from .NET to React / Node.js, building the department's first Node.js SSR content platform
 - Developed channels supporting SEO, H5, hybrid, multilingual, and international traffic scenarios
 - Handled Next.js upgrades, bundle optimization, and SSR rendering pipeline improvements over years of iteration
 - Contributed to Core Web Vitals improvements, code review, and 2-4 person team delivery, supporting long-term international content channel iteration
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Open Source & AI Experiments

LLM / RAG Application Engineering

- [langchain-llm-toolkit](#) — Unified LLM access, vector search, RAG, SSE streaming, cost tracking, and evaluation
- [ai-chat](#) — AI Chat application with document Q&A and streaming conversations
- [solo-chat](#) — Ollama local model chat application

Agent Workflow & AI Frameworks

- [agentic-souls](#) — Planner / Specialist / Evaluator multi-agent collaboration framework
- [langgraph-csv-analyst](#) — LangGraph CSV data analysis workflow
- [autogen-asset-analyst](#) — AutoGen multi-asset research and analysis
- [crewai-product-analyst](#) — CrewAI product analysis pipeline

AI Engineering Tools

- [ai-analyze](#) — MCP + DeepSeek code analysis tool
 - [asset-lens](#) — AI-driven investment research platform
 - [lobster](#) — AI assistant CLI tool
 - [wordpress-tools](#) — WordPress publishing and document conversion toolkit
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Education

Nanjing University of Information Science and Technology | Bachelor of Information and Computing Science | 2001 - 2005

Target Roles

AI Application Engineer / LLM Full-Stack Engineer / AI Engineer / Senior Full-Stack Engineer

Location: Shanghai preferred, remote-friendly

Availability: Immediately available

Target Domains: AI application platforms, LLM engineering, developer tools, FinTech, payment systems, enterprise SaaS