Yan (Jessie) Chen

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Summary

Frontend Engineer specializing in React, Next.js, and TypeScript, with experience building complex, interactive web applications and a strong focus on AI-assisted development using tools like Claude Code and ChatGPT to improve efficiency and code quality. Led key features in an AI-powered reading and note-taking system, including SSE-based streaming chat, real-time multi-session state management, PDF annotation (highlight, underline, shapes) with precise text anchoring, and collaborative reading with real-time presence. Skilled in Zustand, React Query, and full-stack development with Next.js, with a solid understanding of scalable architecture and performance optimization.

Education

University of Ottawa

B.Sc. in Information and Computing Science   **Sep 2019-Jun 2023**
Merit Scholarship Recipient

Professsional Experience

Knowlecy – Frontend Engineer   **May 2023-Sep 2023**
                                                                              Ottawa, Canada

- Migrated a Bootstrap-based multi-page application to a React component-based architecture, reducing duplicated styles and logic while enabling partial updates
- Extracted reusable components including layout, navigation, and forms, improving maintainability and development efficiency
- Collaborated with backend engineers to define API contracts, complete data integration, and conduct frontend-backend testing
- Independently delivered multi-page refactoring, improving UI consistency and iteration speed

Microsoft (via vendor) -Defender Technical Support Engineer   **Dec 2023-Oct 2024**
                                                                              Wuxi, China (Global Support)

- Analyzed web-based system issues by inspecting API interactions, logs, and frontend-backend data flows, identifying root causes across multi-platform environments
- Collaborated with Engineering teams to reproduce bugs and validate fixes, improving system stability and user-facing experience
- Gained strong understanding of frontend integration patterns, API contracts, and system debugging methodologies
- Supported global users and translated complex technical issues into structured solutions, improving troubleshooting efficiency
- Contributed to product documentation and release communication

Independent Developer   **Mar 2025 – Nov 2025**

TaiZhou, China

Weather Board (React, ECharts)
- Designed and developed a real-time weather dashboard using React **and** OpenWeather APIs**.**
- Implemented request deduplication and concurrency control, reducing API requests by ~30%.
- Optimized chart rendering performance by managing component lifecycle with refs and incremental updates.

Next.js Full-Stack Application (Next.js, PostgreSQL, Prisma)
- Developed an integrated frontend-backend application using Next.js App Router**.**
- Designed RESTful APIs for authentication and user management.
- Implemented JWT-based authentication with HttpOnly cookies to enhance security.
- Resolved environment-specific database and ORM compatibility issues during deployment.

YiRead Information Technology - Frontend Engineer   **Dec 2025–Mar 2026**

HangZhou, China

YiRead (AI Reading & Note System) | Next.js, TypeScript, Zustand, React Query

- Led frontend development of V2 features for an AI-powered reading platform, building on an existing SSE-based AI chat system (V1)
- Designed and implemented collaborative reading features, including shared annotations aggregation and real-time online presence indicators
- Extended a TipTap-based editor with custom Markdown shortcuts and input behaviors, improving writing efficiency and user experience
- Built a PDF annotation system (highlight, underline, shapes) with precise text anchoring and coordinate transformation, enabling stable annotation-note mapping
- Developed complex interaction logic such as selection positioning, drag-based coordinate conversion, and dynamic toolbars
- Implemented multi-session AI chat state management with features like tab switching, message pinning, and conversation archiving
- Optimized performance by introducing chunked file uploads with concurrency control (max 2 requests) and dynamic imports for heavy components, improving stability and initial load time
- Leveraged AI-assisted development tools (Claude Code, ChatGPT) to accelerate complex feature delivery and improve code quality