Eichi Arakaki

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Projects

MagicStream — AI-Powered Streaming Platform | *Go, React, MongoDB, JWT, GenAI, HTTPS*   Dec 2025 — Jan 2026

- Built a secure full-stack streaming platform with Go (Gin) and React + TypeScript, supporting authenticated browsing, reviews, and personalized recommendations.
- Implemented JWT authentication with refresh tokens and HttpOnly cookies, enforcing role-based access control and secure session handling.
- Developed a recommendation pipeline using indexed MongoDB queries to rank content efficiently based on user preferences and genres.
- Integrated Google Gemini AI to analyze admin reviews and automatically classify content sentiment, directly influencing recommendation results.
- Designed a secure cross-origin architecture (HTTPS + strict CORS) and modeled MongoDB collections to support secure access and scalable query patterns.

Local Cloud — Distributed Media Processing Platform | *Go, TCP, REST, MySQL, React, Tailwind*   Dec 2024 — Mar 2025

- Built a LAN-first distributed media processing system using Go, coordinating background workers via REST APIs and custom TCP protocols.
- Designed a custom TCP message broker to serialize download jobs, track worker state, and prevent concurrent processing conflicts.
- Implemented a media pipeline with yt-dlp and ffmpeg to download, transcode, and generate browser-compatible MP4 content.
- Developed an API gateway to stream media over HTTP and persist metadata in MySQL with defensive cleanup on failures.
- Applied Go concurrency patterns (goroutines, connection lifecycle management) to safely coordinate communication between services.

Leadership Experience

Technical PM / Junior Tech Lead   Dec 2025 — Present
MarketHub

- Led the technical planning and high-level system design for an MVP developed by a small junior engineering team.
- Defined a modular monolith architecture (Next.js + Spring Boot) to enable parallel development while avoiding premature microservices.
- Broke down product features into clear frontend and backend tasks, helping the team align on implementation details.
- Defined core backend modules (Auth, Products, Search, Chat, Admin, Analytics) to establish clear ownership and reduce coupling.
- Planned authentication, real-time communication, and media upload flows to support future scalability and feature expansion.

Skills

Programming Languages: Go, TypeScript, JavaScript, Rust
Backend: Go (Gin, Mux, net/TCP), Rust (Rocket, Actix), REST APIs, WebSockets
Frontend: React, TypeScript, Vite, Tailwind, NextJS
Databases: MongoDB, MySQL, PostgreSQL, ClickHouse
Systems & Tools: Docker, ffmpeg, yt-dlp, Git, JWT Auth, HTTPS
Languages: Spanish (Native), Japanese (N3), English (B1)