

Eyup Kemal Karaoglu

Software Developer | Backend & Full-Stack Development
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PROFESSIONAL SUMMARY

Software Developer with hands-on experience delivering enterprise systems end to end, from data model and architecture through to production deployment. Sole owner of digital transformation at a logistics group, where I designed and built a production and pricing system in Go on PostgreSQL that replaced spreadsheet-based workflows, alongside ERP-integrated mobile applications and internal AI assistants. Strong background in backend development with Go and Node.js, relational data modeling and transactional integrity, real-time delivery over WebSockets and server-sent events, and containerized deployment with Docker and Kubernetes. Graduate of Ecole 42 Common Core and Karabuk University Computer Programming.

TECHNICAL SKILLS

- Languages:** Go, JavaScript, TypeScript, Python, C, C++, SQL, Bash
- Backend & APIs:** Go (chi, Gin), Node.js, Express.js, NestJS, Django, Django REST Framework, REST API, WebSockets, Server-Sent Events (SSE), JWT Authentication, Two-Factor Authentication (2FA), Role-Based Access Control
- Frontend & Mobile:** React, Next.js, Flutter, Tailwind CSS, Responsive UI, Internationalization (TR/EN)
- Databases:** PostgreSQL, MariaDB, MySQL, Supabase, Relational Data Modeling, Query Optimization, Transactional Integrity, Row-Level Locking, Database Migrations, Vector Databases
- DevOps & Infrastructure:** Docker, Docker Compose, Kubernetes (K3s), Helm, ArgoCD, GitOps, CI/CD, Nginx, Vagrant, Linux, Git, GitHub
- AI & Data:** Claude API (tool calling), Google Gemini, OpenAI API, Retrieval-Augmented Generation (RAG), Embeddings, Data Pipelines
- ERP & Enterprise:** ERP Integration (Movetech), Production/Manufacturing Workflows, Contract Management, Cost Modeling, Inventory and Lot Tracking, CRM
- Methodologies:** Software Architecture, Unit Testing, Code Review, Agile, Scrum, SDLC, Technical Documentation

PROFESSIONAL EXPERIENCE

Software Developer / Lead Developer - Enco Lojistik <i>Istanbul, Turkey</i>	12/2024 - Present
Production & Pricing System: Designed and built the system a hazelnut production business runs on, covering production stages (roasting, grinding, puree, praline, packaging), purchase and sales contracts with an approval workflow, lot matching, inventory movements, sales targets and CRM. Delivered as a single Go service on PostgreSQL, replacing a set of manual spreadsheet processes with one digital workflow. Pricing Engine: Rebuilt the company's Excel cost model as a server-authoritative calculation engine. Parameters are versioned by validity date so updating one never rewrites historical quotes, each quote is frozen together with the inputs it was calculated from, and the calculation is unit-tested against the original spreadsheet so the two provably agree. Data Integrity & Concurrency: Kept every calculation that touches money or stock on the server, with stock consumption guarded by database transactions and row-level locking so two users cannot draw down the same lot simultaneously. Wrote idempotent SQL migrations that run safely on every deployment. Security & Access Control: Implemented JWT authentication with email-based two-factor verification, login rate limiting with CAPTCHA, bcrypt password hashing and per-user page-level authorization. Real-Time & Documents: Pushed live updates to every connected client over server-sent events, and generated PDF contract output with automated email delivery over SMTP. In-Product AI Assistant: Integrated the Claude API with tool calling directly against the system's own tables, so the assistant answers from live business records rather than a static index. Internal AI Assistant (RAG): Architected and deployed a company-wide chatbot on NestJS and WebSockets using Retrieval-Augmented Generation with the Gemini API, building a pipeline that ingests corporate documentation into a vector database to deliver context-aware answers to employees. Driver Integration over WhatsApp: Built a Go and Gin service on PostgreSQL that reaches drivers through WhatsApp, removing the need for a fleet to adopt and maintain a separate mobile application. ERP-Integrated Fleet Maintenance Mobile App: Developed a cross-platform mobile application in Flutter to digitize vehicle maintenance and technical service workflows, integrated with Movetech ERP over REST so inventory and work-order status stay synchronized without duplicate data entry. Movetech ERP Development: Delivered feature work inside the ERP the fleet operates on, rather than only integrating against it from the outside.	

- **Digital Transformation Ownership:** Sole owner of digital transformation across the group and its subsidiaries, managing the full lifecycle of every internal web and mobile application from architectural design through server deployment and ongoing operation.

PROJECTS

Inception of Things - Automated Kubernetes Infrastructure (GitOps)

K3s, ArgoCD, Vagrant, Helm, Nginx, Docker

- Provisioned a multi-node K3s Kubernetes cluster with Vagrant, with separate control-plane and worker nodes to mirror a production-grade distributed environment.
- Engineered a GitOps pipeline with ArgoCD for fully automated deployment and continuous synchronization between GitHub manifests and the cluster.
- Configured Nginx Ingress Controllers for traffic routing, SSL termination and external access to containerized services.
- Authored modular Helm charts and Kubernetes manifests to standardize deployments and keep infrastructure state declarative, with automated rollouts and health monitoring.

ft_transcendence - Real-Time Multiplayer Web Platform

Django, Django REST Framework, JavaScript, WebSockets, PostgreSQL, Docker

- Built a real-time multiplayer game platform with JWT-based two-factor authentication and secure user management.
- Developed a REST API with Django REST Framework and integrated WebSockets for low-latency state synchronization and live chat.
- Containerized the full stack with Docker Compose to guarantee environment parity between development and production.
- Optimized PostgreSQL queries and stateful data handling for user profiles, match history and global rankings; worked in an Agile team with sprint planning and peer code review.

ft_irc - Custom IRC Server

C++, Network Socket Programming, Multithreading

- Implemented an IRC server compliant enough with the protocol to serve standard clients such as HexChat.
- Handled user commands, message routing, channel operations and non-blocking socket I/O.
- Focused on real-time data parsing, concurrency and multithreading logic.

EDUCATION

Ecole 42 Kocaeli - Common Core Program 01/2022 - 03/2024

Peer-to-peer, project-based curriculum in C/C++, systems programming, networking, containerization and web development.

Karabuk University - Associate Degree, Computer Programming 09/2021 - 06/2024

LANGUAGES

Turkish (Native) | English (B1 - technical reading and written correspondence)

REFERENCES

Available upon request.