Çağatay Türkan

Backend Software Engineer · Node.js / NestJS · AI & RAG

Computer Engineer (BSc & MSc)

cagatayturkann@gmail.com cagatayturkan.com linkedin.com/in/cagatayturkann github.com/cagatayturkann

Izmir, Türkiye

Summary

Backend engineer with 4+ years of building production APIs in Node.js and TypeScript, after two years as a business analyst on an AI chatbot platform. Most recently one of three engineers building payments, loyalty and licensing for a multi-branch restaurant platform, a token sale platform and analytics services; earlier, real-time market data APIs serving millions of requests a day. I also build AI features with OpenAI and RAG, and deliver web projects end to end for freelance clients.

Experience

Software Engineer · Fintech & restaurant technology company (contract) May 2025 – Present

One of three backend engineers building several products in parallel.

- **Restaurant ordering platform:** backend modules for a multi-branch ordering system — loyalty and coupons; four payment providers (PayTR, iyzico, Stripe, Dojo); inventory, branch management, QR table ordering and table checks; notifications and POS integration.
- **Licensing and subscription service:** feature-based pricing, subscription lifecycle, licence key verification, recurring payments with Stripe and iyzico, and invoicing.
- **Token sale platform:** sales, bonus and support modules and request logging; a service that watches Ethereum and BSC wallets and reports incoming payments over webhooks.
- **Sales analytics API:** sales by country and currency, average deposit, conversion rate and marketing ROI for an internal dashboard.
- **Shared infrastructure:** the NestJS starter the team's services are built on — JWT and Redis sessions, role-based access, request logging, Sentry and admin endpoints.

NestJS, TypeScript, PostgreSQL/PostGIS, TypeORM, Redis, AWS, Docker

Software Engineer · Juphy, Oregon, USA (remote) Sep 2023 – Jan 2025

- Built the Node.js backend of a Shopify-integrated sales chatbot: order management, sales and user interaction APIs.
- Implemented hybrid search combining MongoDB and the Weaviate vector database to improve answer relevance and speed.
- Used retrieval-augmented generation (RAG) and fine-tuned OpenAI models on store data for accurate, context-aware answers.
- Wrote classification logic that routes user requests such as orders, tracking and product questions.
- Built statistics and analytics endpoints over real-time and historical chatbot data.

Software Engineer · Matriks Bilgi Dağıtım Hizmetleri, Istanbul Apr 2022 – Sep 2023

- Built high-performance REST APIs with Node.js and Fastify in a microservices architecture, distributing real-time Borsa Istanbul market data.
- Designed and maintained APIs handling millions of requests a day for thousands of users.
- Implemented data access and caching with Cassandra, Redis and Memcached to cut response times.
- Consumed streaming data over MQTT for real-time endpoints; wrote unit tests with Jest and worked in Scrum.

Business Analyst · CBOT, Istanbul — Jan 2019 – Apr 2021

- Managed end-to-end chatbot implementations for 20+ clients: requirements, timelines and delivery.
- Designed ordering and payment workflows on the CBOT Fusion platform and specified new platform features.
- Tested APIs and interfaces with Postman and Selenium; wrote user manuals and technical documentation.

Freelance Projects

- **Hizmeet Pro** (2026) — marketplace connecting service seekers with providers for the EMSİ community, built end to end with NestJS, MongoDB, Socket.IO and React.
- **2GurmePati** (2026) — turned a WordPress site into a sales platform with courses, memberships and PayTR payments; the founders now sell through their own site instead of Shopier.
- **Tayfun Optik & Ecem Çetin Optik** (2024) — WooCommerce catalog sites for two opticians, with one-tap stock and price requests over WhatsApp.

Writing

- **Building Intelligent E-commerce Experiences with RAG** · cagatayturkan.com/blog
- **Vector Databases and Weaviate: Building Semantic Search Applications** · cagatayturkan.com/blog

Skills

Languages	TypeScript, JavaScript
Backend	Node.js, NestJS, Express, Fastify, REST, GraphQL, Socket.IO
Data	PostgreSQL/PostGIS, MongoDB, Redis, Cassandra, Elasticsearch, Weaviate, TypeORM
AI	OpenAI API, RAG, vector search, fine-tuning
Payments & commerce	Stripe, iyzico, PayTR, Shopify, WooCommerce
Messaging	MQTT, Kafka
Tools	Docker, AWS, Git, Jest, Sentry, Postman, Jira

Education

MSc, Computer Engineering · Beykent University, Istanbul
Oct 2019 – Jan 2021

BSc, Computer Engineering · Beykent University, Istanbul
Oct 2012 – Jun 2017

Languages

Turkish (native) · English (fluent, C1)

Military service: completed

References

Available on request.