

OGUZ KAAAN DERE

Software Developer | Full-Stack, Java & Applied AI

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PROFESSIONAL SUMMARY

Software developer with 4+ years of professional experience building enterprise web applications and hospital information systems. Develops Java/Spring backends, Angular/React/TypeScript frontends, and controlled AI and document workflows. Experienced with PostgreSQL and Oracle, REST/OpenAPI, automated testing, CI/CD, and production-oriented software architecture. Combines strong software engineering expertise with a background in biomedical engineering.

WORK EXPERIENCE

Independent Software Developer & Product Builder

Jan 2025 - Present

Independent product and portfolio development | Düsseldorf, Germany

- Designs and deploys production-oriented systems with Java/Spring Boot and React/TypeScript, focusing on testable architecture, documented interfaces, and CI/CD.
- Built LedgerFlow with a functional account service, immutable ledger history, reconciliation, PostgreSQL row locking, Flyway, and OpenAPI 3.1.
- Developed browser-based systems with a secure DSL, parser/interpreter, Web Workers, WebGL2, and local-first RAG, OCR, and BYOK workflows.
- Published live demos with automated verification using Maven, Vitest, Playwright, and GitHub Actions, supported by transparent architecture and limitations documentation.

Technologies: Java 25, Spring Boot, React, TypeScript, PostgreSQL, OpenAPI, Docker, GitHub Actions

Full-Stack / Frontend Developer

Dec 2022 - Dec 2024

Ekinoks Software | Ankara, Türkiye (hybrid)

- Migrated Silverlight interfaces of a NATO-related platform to Angular and ensured functional parity through unit tests.
- Developed complex enterprise frontends with Angular, TypeScript, RxJS, NgRx, and Kendo UI, including forms, state management, and REST integrations.
- Implemented and maintained backend features with Node.js/Fastify and Java/Spring Boot, integrated with PostgreSQL.
- Worked in a five-person Agile team across code reviews, sprint planning, QA coordination, and deployment validation.

Technologies: Angular, TypeScript, RxJS, NgRx, Kendo UI, Vue.js, Node.js, Java, Spring Boot, PostgreSQL

Full-Stack Developer

May 2021 - Nov 2022

Fonet Software | Ankara, Türkiye

- Developed and maintained features for a large-scale hospital information system using Java, JavaScript/ExtJS, Oracle, and PL/SQL.
- Supported modules for patient admission, appointment management, reporting, inventory, and clinical workflows across 60+ production applications and modules.
- Optimized SQL queries, stored procedures, and service logic for performance-critical workflows and supported go-lives on site at hospitals.
- Investigated production incidents and handled high ticket volumes with implementation, support, and customer teams.

Technologies: Java, JavaScript, ExtJS, Oracle, PL/SQL, REST

Game Developer - Incubation Program

Jul 2019 - Aug 2020

ATOM - METU Technology Transfer Center | Ankara, Türkiye

- Built 2D/3D mobile game prototypes with Unity and C#, including gameplay mechanics, UI, object pooling, and Android optimization.
- Presented prototypes in university pre-incubation and game programs and iterated based on mentor and stakeholder feedback.

Technologies: Unity, C#, Android, Git

SELECTED ENGINEERING PROJECTS

LedgerFlow - Java Banking Platform | [GitHub](#)

- Java 25 / Spring Boot multi-module system with a functional account service, ports-and-adapters architecture, PostgreSQL/Flyway, immutable ledger, reconciliation, row locking, RFC-compliant API errors, OpenAPI 3.1, and a verified build.

Swarm Script - Deterministic Simulation & Secure DSL | [GitHub](#) / [Live Demo](#)

- Built a tokenizer, recursive-descent parser, typed AST, and budgeted interpreter without eval; separated a deterministic 30 Hz simulation from React/Phaser through a typed Web Worker protocol and covered core logic with 25 Vitest tests and Playwright.

Local-First AI & Document Workflows | [Portfolio](#)

- Germany Path Finder and Admission Fit Checker combine PDF extraction, OCR, RAG, structured validation, local storage, and BYOK model access. Sources, extracted data, AI explanations, and final user decisions remain clearly separated.

Other live projects: context-api-but-it-scales, Weather with Shaders, and Schleimer - fully documented at [okdere.com](#).

TECHNICAL SKILLS

Backend & APIs: Java, Spring Boot, Node.js, Fastify, NestJS, REST APIs, OpenAPI, Maven

Frontend: TypeScript, JavaScript, Angular, React, Vue.js, Next.js, RxJS, NgRx, Vite, HTML/CSS, Tailwind CSS

Databases: PostgreSQL, Oracle, PL/SQL, Flyway, IndexedDB

Testing & Delivery: Unit and integration testing, Jasmine/Karma, Vitest, Playwright, Docker, GitHub Actions, GitLab CI, Git, Linux

AI & Document Workflows: RAG, OCR, Tesseract.js, PDF.js, structured extraction, BYOK model integrations, Zod

Engineering: Clean Architecture, Ports and Adapters, SOLID, API and system design, CI/CD, Agile/Scrum, code reviews

Interactive Systems: Web Workers, WebGL2, GLSL, Phaser, Unity, C#

EDUCATION & PROFESSIONAL DEVELOPMENT

German B2 Vocational Language Course (BAMF/DeuFöV), 400 units

Feb 2026 - Jun 2026

IHK Düsseldorf | Düsseldorf, Germany

- Completed a job-related B2 German course; telc German B1 certificate held.

Master's Studies in Computer Science (Degree Not Completed)

Feb 2022 - Dec 2024

Başkent University | Ankara, Türkiye

- Coursework completed; master's thesis not submitted.

B.Sc. Public Relations and Advertising (GPA 3.33/4.00)

Sep 2019 - Jul 2023

Anadolu University | Distance Learning

B.Sc. Biomedical Engineering

Sep 2015 - Jul 2020

Başkent University | Ankara, Türkiye

- Capstone project on reconstructing medical image data; hands-on experience with medical devices.

OPEN-SOURCE CONTRIBUTIONS

Godot Engine - Contributor to the Turkish localization via Weblate; 87+ technical translations focused on consistent editor terminology.

LANGUAGES

German: B1 (telc-certified, Dec 2025); completed B2 vocational German course (400 units, Jun 2026)

English: B2 - professional working proficiency

Turkish: Native

LOCATION & AVAILABILITY

Düsseldorf, Germany | willing to relocate across Germany | available immediately