

# Ismail Dogan

Senior Software Engineer

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## Summary

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Senior Software Engineer with over 6 years of experience architecting high-availability systems across the Energy, Fintech, and E-commerce sectors. Specialized in Greenfield development, having built the Zing (HSBC) digital banking platform from scratch and automated Treasury workflows that reduced manual operational effort by 100%. Expert in Java Spring Boot, Kafka, and Microservices, currently leveraging an MSc in Artificial Intelligence from the University of Liverpool to implement data-driven optimizations in complex enterprise environments.

## Skills

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C# • Java • Spring Boot • .net core • Angular • Microservice architecture • Deep Learning • Machine learning

## Work Experience

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### Senior Software Engineer

Jul 2025 – present

Eesti Energia • Full-time

Tallinn, Estonia

**Technologies:** Java • Spring Boot • PostgreSQL • React • Apache Kafka

- Spearheaded a critical optimization initiative for the resource-management system serving Pan-Baltic markets (Estonia, Latvia, Lithuania); tuned database queries and Spring Boot configurations to reduce API latency by 98% (from 700ms to 15ms).
- Architect and develop scalable microservices using Java Spring Boot, Kafka, and React, ensuring the reliable delivery of high-volume metering point data to internal consumers.
- Enforce high engineering standards through strict code review protocols and comprehensive test coverage, maintaining robust CI/CD pipelines via Jenkins.
- Drive technical leadership by conducting technical interviews for new hires and leading backlog refinement sessions to translate business requirements into clear technical tasks.

### Senior Software Engineer

Dec 2023 – Jun 2025 • 1 yr 6 mos

HCLTech • Full-time

Tallinn, Estonia

**Technologies:** Java • Spring Boot • Angular • PostgreSQL • Microservices

- Contributed to building Zing, a digital banking application, from the scratch, designing the foundational architecture for scalable financial services.
- Architected and deployed critical internal microservices using Java and Spring Boot for global providers (HSBC, Tink, Nium, Duco, Snowdrop), maintaining full end-to-end ownership of system reliability.
- Engineered seamless multi-currency and payout integrations (Wallet, Proxy, Local, Swift) via Nium, utilizing Kafka for asynchronous event processing and ensuring global transaction consistency.
- Modernized legacy systems by refactoring core microservices and optimizing PostgreSQL schemas to support new payment methods, achieving 100% test coverage through unit and integration testing.
- Spearheaded the development and maintenance of payment operation services and micro-frontends, directly supporting Treasury and Customer Operations' daily workflows.
- Devised and implemented a comprehensive E2E testing strategy for all transfer combinations, drastically reducing regression issues and streamlining QA processes.
- Collaborated with Infrastructure to optimize CI/CD pipelines using Argo CD, integrating SonarQube and Checkmarx to uphold high security and code quality standards.
- Proactively resolved high-priority production incidents, ensuring system uptime and operational continuity.

## Software Engineer

Jun 2022 – Nov 2023 • 1 yr 5 mos

Monese • Full-time

Tallinn, Estonia

**Technologies:** Java • Spring Boot • Angular • PostgreSQL • Microservices

- Developed and maintained scalable microservices using Java Spring Boot and PostgreSQL, ensuring high availability for the digital banking platform.
- Engineered a Batch Admin Payment system using Java Spring Boot and Angular, eliminating the need for manual individual payments and significantly reducing operational risk and overhead for the Treasury team.
- Played a key role in the strategic transition from Monese core services to the HSBC Zing greenfield project.
- Key contributor to the initial design and gap analysis sessions for the HSBC Zing greenfield project, defining the roadmap for migrating core Monese microservices to the new HSBC infrastructure.
- Led the refactoring and migration of existing banking microservices to align with the new HSBC Zing infrastructure and compliance standards.

## Software Developer

Dec 2021 – May 2022 • 5 mos

PayCore • Full-time

Istanbul, Turkey

**Technologies:** Java • C# • Spring Boot • .NET Core • Microservice architecture

- Contributed to a large-scale digital transformation for a Tier-1 Turkish Bank, focused on migrating legacy mainframe systems to a modern, high-performance microservices architecture.
- Conducted deep-dive technical audits and gap analysis for core banking modules, including Card Issuing, Tokenization, Card Embossing, and Customer Creation flows.
- Reverse-engineered and documented complex existing systems built with C# .NET Core microservices and Angular frontends to ensure seamless feature parity during the modernization process.
- Collaborated with cross-functional teams to identify functional disparities between legacy mainframe processes and new cloud-ready solutions, ensuring 1:1 migration accuracy for mission-critical payment services.

## Junior Software Developer/Software Developer

Feb 2020 – Dec 2021 • 1 yr 10 mos

Inveon Digital Commerce Solutions • Full-time

Istanbul, Turkey

**Technologies:** C# • .NET Core • React • Microservices • Microservice architecture

- Developed and optimized core checkout and order management modules for both web and mobile applications, powering global brands including Watsons, Columbia, Swarovski, Atelier Rebul, Yargici.
- Navigated the transition from a monolithic legacy system to a modern microservices architecture, ensuring feature parity and stability during the migration of newly created products.
- Spearheaded the integration of diverse payment gateways (Masterpass, iyzico, Finansbank, Ziraat, Mobilexpress) using C#, .NET Core, and React, streamlining transaction flows for high-volume retailers.
- Engineered reusable RESTful API services for critical phases—basket management, campaign logic, and secure checkout—ensuring high scalability across a multi-tenant enterprise platform.
- Developed customer integration modules to ensure strict adherence to KVKK/GDPR regulations, utilizing secure communication tools for sensitive data management.
- Actively participated in estimation, ticket refining, and deep-dive code review sessions, contributing to improved sprint velocity and maintaining high code-quality standards.

## Projects

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### Multi-agents in Fintech Regulatory Compliance

Jun 2025 – present

**Technologies:** Machine learning • Multi Agent frameworks • Reinforcement Learning • PyTorch • FinTech

- M.Sc. in Artificial Intelligence, University of Liverpool (Thesis: *Multi-Agents in Fintech Regulatory Compliance*) Developing a novel AML detection system using Multi-Agent Deep Deterministic Policy Gradient (MADDPG) reinforcement learning to train autonomous agents. Engineered a robust training environment using Spring Boot microservices and Apache Kafka to simulate real-time banking transactions, utilizing Centralized Training with Decentralized Execution (CTDE) for cooperative agent learning.

## Education

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### Master's degree: Artificial Intelligence

Oct 2023 – Mar 2026 • 2 yrs 5 mos

University of Liverpool

Liverpool, United Kingdom

- Online Master's Degree in Artificial Intelligence, University of Liverpool, Liverpool, UK Start Date: October 2023

### Bachelor's degree: Computer Engineering

Oct 2016 – Apr 2020 • 3 yrs 6 mos

Dogus University

Istanbul, Turkey

Grade/GPA: 2.41

- Bachelor's Degree in Computer Engineering (English Program), Faculty of Engineering, Dogus University, Istanbul, Turkey 2016-2020

### Associate's Degree: Computer Programming

Sep 2014 – Jul 2016 • 1 yr 10 mos

Duzce University

Duzce, Turkey

Grade/GPA: 2.97

- Associate's Degree in Computer Programming, Duzce University, Duzce, Turkey 2014-2016

### High school diploma: Web Programming

Sep 2010 – Jun 2014 • 3 yrs 9 mos

Tuzla Technical and Vocational High School

Istanbul, Turkey

Grade/GPA: 70

- High School Diploma with specialization in Web Programming, Tuzla Technical and Vocational High School, Istanbul, Turkey 2010-2014

## Certifications & Awards

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Youth Exchange Natural Connections - Erasmus+

Aug 2023

Hands-On Hacking Essentials - Clarified Security OÜ

Jan 2026

Web Application Security - Clarified Security OÜ

Jan 2026