Mehmet Utku Meşe

Software Design Engineer at NETAŞ · platforms, services and applied AI

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PROFILE

Software Design Engineer at NETAŞ with 4+ years of product development across mobile, web, television and backend systems. Currently building **Visium AI**, an autonomous test platform: owner of its execution microservice (TypeScript, Kafka, PostgreSQL, Playwright/Appium), contributor to the LLM-driven test-generation pipeline and the Next.js dashboard. Previously developed the set-top box portal of a national IPTV platform. Comfortable owning a feature end to end; strong on reliability, constraints and clear technical writing, and drawn to understanding how things really work — Naviscope grew out of exactly that curiosity.

EXPERIENCE

Software Design Engineer

Nov 2025 — present

NETAŞ · Ankara · full-time

Visium AI — autonomous test platform

- Built and own the **Test Executer**: an independent microservice that imports immutable scenario packages (JSON Schema + canonical SHA-256 digests), validates them in a preflight step and runs WEB, REST API and native mobile scenarios through a durable Kafka-backed queue; artifacts in MinIO/S3, live logs over Valkey pub/sub, React + TypeScript operator UI.
- Test Intelligence pipeline: strategist → planner → writer LLM agents with strict structured-output schemas, bounded evidence correction, human-in-the-loop review and provider-agnostic routing via LiteLLM (Azure OpenAI, local models).
- Dashboard features in Next.js 15 / React 19: workflow and execution monitoring, a semantic code graph of up to 2 000 nodes, server-side evidence export with redaction.
- Runtime hardening across local, staging and Azure Compose topologies: capacity limits, provider-key encryption, health gates, config parity; Spring Boot (Java 21) gateway and core services.

Tivibu IPTV portal — ZTE set-top boxes, Türk Telekom

- ~400 commits over eight months of sprints on the portal layer: channel list and filter menus with viewport-aware scrolling, mini EPG, playing bar (speed/pause sync, subtitle and audio tracks, zap OSD), error overlays, search and series detail.
- JSP/Java EE and JavaScript on legacy WebKit; HLS/DASH with Widevine and Verimatrix DRM; ZTE middleware APIs. Root-cause analyses for field issues (e.g. encrypted broadcast producing a black screen on the native player).

Co-Founder

May 2025 — Mar 2026

Codify · own venture · hybrid

- Co-founded a small product studio and built Bisevk (formerly Yükümü AI), a two-sided freight marketplace: mobile-first flows for listings, offers and shipment tracking in Flutter/BLoC; real-time messaging over WebSocket with Spring Boot and MongoDB; web contributions in React. Published on the App Store.

TOOLKIT

Languages
TypeScript, JavaScript, Java, Dart, SQL · Kotlin, Swift, Python

Backend & data
Node.js, Spring Boot, PostgreSQL, Kafka, Valkey/Redis, MinIO/S3, REST, WebSocket · MongoDB, FalkorDB

Frontend & mobile
React, Next.js, Flutter · native Android/iOS, TV/STB web (JSP)

AI & testing
LLM pipelines (LiteLLM, Azure OpenAI), structured outputs, Playwright, Gherkin, Jest · Appium

Ops
Docker Compose, Linux, Nginx, Azure · Cloudflare, GitLab CI

Practices
Clean architecture, event-driven design, Scrum, code review, technical writing

EDUCATION

B.Sc. Software Engineering
Fırat University · 2021 — 2025 · GPA 3.27 / 4.00

RECOGNITION

NASA Space Apps Challenge 2022 — first place, team Wink To The Future

Speaker at software engineering conferences

Core team, GDG & WTM Elazığ

Junior Software Development Specialist

Dec 2024 — Oct 2025

BDH Bilişim Destek Hizmetleri (NETAŞ group) · İstanbul · full-time

- Enterprise mobile products for field and warehouse teams in Flutter, React Native and Ionic: Emptor Mobile (work orders, inventory, process tracking; Ionic → Flutter), BoxCoder (bulk ZPL barcode printing to Zebra printers over Bluetooth) and a cargo pre-acceptance workflow with its Node.js REST API (JWT, reporting).

Mobile Application Developer

May 2024 — Jun 2025

Eyfel Yazılım · Elazığ · part-time

- Restaurant-and-courier platform integrating order management and delivery across channels and online food platforms: Flutter apps for restaurants and couriers, Node.js services, MongoDB.

Software Engineer Intern

Oct 2024 — Jan 2025

NETAŞ · İstanbul

- Passo Mobile and Emptor Mobile with Flutter, Ionic and web-service APIs; technical documentation; worked across two BDH teams and received a job offer during the internship.

Software Engineer Intern

Jul 2024 — Sep 2024

Intellium · İstanbul · remote

- Rebuilt an unfinished mobile project into a cross-platform Flutter app for an internal company portal; GetX state management, .NET REST integration; Scrum Master in the final weeks.

Mobile Application Developer

Mar 2023 — Apr 2024

Önersene · freelance · remote

- Developed the Önersene local-services app for a Konya Teknokent start-up with Flutter, Node.js and MongoDB.

SELECTED PROJECTS

- **Naviscope** Flutter · GNSS · open source · 2026
  Location-health dashboard: fix quality, accuracy, satellite C/N0, skyplot geometry; native Android GNSS + CoreLocation. Accompanied by a long-form article on GNSS. github.com/Utku-Mese/naviscope
- **Plate** Flutter · 2025 — present
  Social app in development where people connect through licence plates; vehicles verified against registration documents, on-device end-to-end encrypted chat, Mapbox, subscriptions. 400+ commits.
- **B860H Command Center** Flutter TV · Termux · 2026
  An Android TV box as a LAN mini-NAS: D-pad Flutter dashboard over Termux services — WebDAV storage, telemetry API, network map, SSH, smart-home control.
- **Bisevk** Flutter · Spring Boot · 2025 — 2026
  Two-sided freight marketplace (listings, offers, real-time messaging, shipment tracking); published on the App Store.

WRITING

"How GNSS and location services really work" — Medium, 2026 (Turkish)
medium.com/@mutkumese

CREDENTIALS

Agile Methodologies & Scrum — BTK Akademi, 2023

Flutter Bootcamp — GDG & WTM Elazığ, 2022

Machine Learning Study Jams — GDG, 2022

LANGUAGES

Turkish (native) · English (professional working)