



Ermir Mulaku

SENIOR SOFTWARE ENGINEER

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Portfolio

www.ermir-mulaku.com

GitHub

github.com/ErmirMulaku

CORE SKILLS

Frontend

React 19, Next.js 15/16, Angular, Vue.js, Redux Toolkit, TypeScript, JavaScript (ES6+), SCSS/CSS, CSS animations, RTL & i18n, Responsive & PWA

APIs & Backend

REST, GraphQL & gRPC API design, NestJS, Laravel/PHP, Node.js, Prisma/PostgreSQL, MySQL, JWT & Sanctum auth, RBAC, multi-tenant schema design

Cross-Platform

React Native / Expo, Electron, Socket.IO / WebSockets (real-time), Elixir/Phoenix

AI / ML

Python, LightGBM, OpenAI embeddings & function-calling, FAISS vector search, RAG chatbots, AI-augmented dev (Claude Code, Copilot)

Testing & Tooling

Jest, Playwright, Cypress, Testing Library, Storybook, ESLint, Prettier, Webpack, esbuild, Git, Husky, A/B testing

Cloud & Ops

Docker, Kubernetes, AWS (App Runner, RDS, ECR), Google Cloud Run, CI/CD (GitHub Actions), Prometheus, Core Web Vitals / RAIL

CERTIFICATIONS

Advanced React Component Patterns

Udemy · 2022

Functional Programming in JavaScript

Udemy · 2023

Advanced JavaScript & React

Beetroot Academy · 2021

EDUCATION

BSc, Computer Science

University of Prishtina · 2017–2021

PROFILE

Senior-level Software Engineer with 5+ years building scalable, user-focused products end to end. I design and ship complex React + Next.js applications and the APIs behind them — REST, GraphQL, and gRPC services consumed by web, mobile, and desktop clients. Beyond feature delivery, I take ownership of system design: I've architected a multi-tenant SaaS migration plan for a cross-platform platform and built a production ML recommender from scratch. Comfortable across the whole stack and lifecycle — NestJS/Laravel APIs, Postgres/MySQL, React Native, Electron, real-time systems, and CI/CD on AWS & GCP. I work autonomously, write high-standard documentation, and align technical decisions with real product needs.

EXPERIENCE

Software Engineer

Jul 2025 – Present

eduwo · Prishtina, Kosovo (Hybrid)

- Build production **React 19 / Next.js 15** features in TypeScript across a Swiss education marketplace — a multi-step matching wizard, course/study/profile pages, and an AI recommendation chatbot — across four locales with SSR and PWA support.
- Design, build, and **document REST APIs** in Laravel (auth, validation, queued jobs, transactional email and notifications) consumed by the web app, the admin, and native clients.
- Engineered AI/search features end to end: a **FAISS vector-search** service and an AI recommendation chatbot (service layer + Next.js API route + React UI), plus OpenAI-powered content generation in the admin.
- Built a learning-to-rank recommender in **Python (LightGBM, OpenAI embeddings, calibration)**, reaching NDCG@7 0.68 and 79.5% hit-rate@7 on ~50k user–course interactions.
- Own quality and uptime for team services through ESLint, Jest, **Playwright** E2E, pre-commit gates, and monitoring of owned endpoints.

Frontend Developer

Jul 2021 – Jul 2025

eduwo · Kosovo

- Built complex **single-page applications** with React + Redux Toolkit and TypeScript, focused on performance, responsiveness, and clean UX.
- Implemented UIs from scratch with **SCSS** — responsive layouts, animations, carousels, charts, maps, and PWA features — and tracked Core Web Vitals.
- Designed and documented **REST API contracts** powering frontend features, coordinating payloads with backend and client consumers; built Next.js API routes as a BFF layer.
- Ran data-driven UI experiments with **A/B testing** and product analytics; worked across the modern JS toolchain (Webpack, esbuild/SWC, ESLint, Prettier) with Formik + Yup.

Intern Front-End Developer

Feb 2021 – Jun 2021

Kutia · Prishtina, Kosovo

- Built responsive, accessible UI components within a cross-functional product team, strengthening fundamentals in JavaScript, React, HTML5, CSS3, and Git workflows.

SHIPPED PRODUCTS

TutorHub — Full-Stack Tutoring Marketplace (Independent project)

NestJS · GraphQL · gRPC · PostgreSQL/Prisma · Next.js · Expo · Elixir/Phoenix · AWS

- Designed and built a production-grade marketplace **monorepo** end to end: a NestJS API exposing one domain over **REST, GraphQL, and gRPC**, a Next.js SSR/PWA storefront, a custom-Webpack React/Redux tutor dashboard, and an Expo mobile app.
- Built and **published an open-source npm package** (a timezone-aware lesson-availability engine), plus a shared, RTL-safe UI library documented in Storybook.
- Shipped an **Elixir/Phoenix** microservice for lesson-reminder notifications over gRPC, and an OpenAI function-calling booking assistant with server-executed, validated tool calls.
- Automated **CI/CD** with GitHub Actions (lint, typecheck, test, build, Lighthouse budget) deploying the API to **AWS App Runner** via ECR and the frontends to Vercel; exposed health/readiness probes and Prometheus metrics.

S2O — Cross-Platform Restaurant Management Platform · Viviarik

NestJS · Next.js · React Native (Expo) · Electron · Socket.IO · Kubernetes

- Designed and built a **full-stack multi-tenant SaaS** end to end: a NestJS REST API plus three clients — a Next.js web admin, a React Native mobile app, and an Electron desktop POS — sharing the API and a real-time Socket.IO layer.
- Built a **real-time order pipeline** (WebSocket gateways) streaming orders to kitchen/bartender displays, with server-enforced status transitions; dual JWT + 4-digit PIN auth and FIFO inventory with batch/expiry tracking.
- Authored a **multi-tenant migration architecture** — container + database per tenant on Kubernetes, Helm-templated deployments, and an automated onboarding control plane — to move the platform from pooled to fully isolated per-restaurant infrastructure across AWS/Azure/GCP.
- Shipped native clients via electron-builder (Windows NSIS, Linux AppImage) and Expo (OTA updates, push, native printing).

Spicy Analytics — Multilingual RTL Web Platform

[Next.js](#) · [i18n](#) · [RTL](#) · [SSR](#) / [SEO](#)

- Built a production multilingual platform with full **RTL support** (English LTR + Arabic RTL, mirrored layout) via a key-based i18n system across all pages and components, for an enterprise client roster spanning healthcare, banking, and telecom.
- Implemented per-locale routing, SSR-rendered SEO metadata, and **next/image** performance optimization across a responsive, content-heavy enterprise site.

Three60 Music — Animated E-commerce Site

[Next.js](#) · [CSS animations](#) · [E-commerce](#)

- Built an **animation-rich**, fully responsive Next.js front end with smooth scroll and transition motion for an engaging interactive experience.
- Implemented a storefront with cart, a two-brand information architecture, SEO/social metadata, and CDN-served media.