Ledian Ibishi

Software Engineer — Backend Systems & Cross-Platform Applications

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SUMMARY

Software engineer focused on backend systems and cross-platform applications. I designed, built and shipped Appointo, a booking platform for local service businesses that is live on the web, the App Store and Google Play: a Fastify and PostgreSQL API, a React web app and an Expo mobile app. Since 2024 I have also built backend features for a commercial .NET point-of-sale product. My strongest work is logic where mistakes cost money or trust: bookings that cannot overlap, scheduling across staff and time zones, sessions and authentication, and fiscal and cost calculations.

EXPERIENCE

Appointo — Founder and sole developer

2026 – present · appointo.org · App Store · Google Play · Case study

Booking platform for salons, barbershops and studios, in English, Albanian and Macedonian.

- Designed, built and shipped the whole product: a Fastify and PostgreSQL API (about 230 endpoints, 33 tables, 38 migrations), a React web app and an Expo app for iOS and Android, sharing one TypeScript domain package so the apps show the same availability the server accepts.
- Made double bookings impossible under concurrent requests with a PostgreSQL exclusion constraint over each staff member's time ranges, plus idempotency keys; verified with parallel-request integration tests.
- Built a scheduling engine that fits up to six services across several staff into one visit, using a budgeted depth-first search with pruning and an independently written rule validator, tested on 5,000 seeded random cases.
- Replaced seven-day JWTs with revocable device sessions: hashed tokens, HttpOnly cookie with CSRF protection for web, bearer tokens for mobile, and TOTP two-factor with recovery codes, while keeping older app versions signed in.
- Rebuilt the booking model while the product kept taking bookings and older app versions kept working: expand-only migrations, a versioned API beside the old one, and idempotent backfills with a dry-run mode.
- Implemented time-zone-correct scheduling, including daylight-saving changes, verified against Luxon in parity tests.
- Reviewed the system for security, documented 26 findings and fixed or mitigated each one with regression tests.
- Set up CI on GitHub Actions (type checks, lint, secret scan, about 680 tests against a real PostgreSQL database); released to the App Store and Google Play, with iOS builds through EAS.

Commercial point-of-sale product (.NET) — Software developer (contract)

2024 – present

Independent contract developer on a commercial point-of-sale product used by restaurants and shops (C#, ASP.NET Core, SQL Server, .NET MAUI). I handle client meetings, support, development and releases.

- Built the daily fiscal report book required by Macedonian law: turnover and VAT per rate per day computed from fiscalised receipts, original and edited values stored per day, days flagged when their receipts later change, a review-and-edit step before the fiscal day closes (with a fiscal-device simulator to test it), and the official monthly PDF generated in code.
- Built a production module (in development) for businesses that make what they sell in stages: each batch is recorded through the stock ledger with its cost, with its own role and permissions, and can be edited later with a full revision history and undo.

- Built a public QR menu service in ASP.NET Core with a SQLite snapshot store per venue, fed by catalogue pushes from the on-premises API; translations record whether text was machine-translated or hand-corrected, so corrections are never overwritten; the menu has a language switcher.
- Implemented a landed-cost engine for foreign-currency imports: currency conversion, and customs, excise and freight allocated across lines with largest-remainder rounding so allocations always sum to the cent; drafts use optimistic concurrency.
- Built a data-collection layer for later analysis: the cost of every sold line from recipes and buy prices, a history of price, recipe and price-rule changes with who made them, order timing, cancellation reasons, public holidays and hourly weather, and a nightly venue summary; timing runs check that selling stays as fast as before. Fixed bugs found along the way, including an order's ready time being overwritten and a deadlock when retrying split receipts.
- Extended the licensing service with menu-status endpoints for the apps and the QR menu, and safeguards against duplicate domains.

Freelance web developer

2023 – present

- Built and deployed websites for businesses in North Macedonia, Italy, Switzerland and Germany, including fidiagraf.com, zaimi.ch, degroup.mk, odeon.mk and leron-rental.de.
- Worked as a developer on fidiagraf.com, an Italian machine manufacturer's website: converted it from WordPress to Astro. The site has six languages linked with hreflang, about 140 pages, and product, breadcrumb and FAQ structured data on its machine pages.
- Worked as a developer on Airlux, an animated three-language site for a sheet-metal workshop (Astro, GSAP): a scroll story, a sizing tool, quote requests prefilled per product, and pages for installers, distributors and builders.
- Built restaurant and shop sites with admin panels for managing menus, products, categories and images (pella.mk, minjon.mk), using React, Node.js, PostgreSQL and Supabase.
- Built Ecore, a role-based operations app with admin, client and worker dashboards, timesheets, PDF reports and notifications (React, Node.js, PostgreSQL, Prisma).

SKILLS

Backend	TypeScript, Node.js, Fastify, Express, REST API design, Zod, C#, ASP.NET Core, Dapper
Data	PostgreSQL, Prisma, SQL Server, SQLite, schema design, migrations, concurrency control
Web and mobile	React, React Native (Expo), Vite, Tailwind CSS, Astro, internationalisation
Practices and tools	Integration testing (Vitest), GitHub Actions, Git, authentication and session security, Railway, Vercel, EAS

EDUCATION

South East European University — Software Engineering, Faculty of Computer Sciences · 2026 – present

Gymnasium (secondary school), Gostivar, North Macedonia · completed 2026

AVAILABILITY

Remote. Open to custom software and SaaS projects.