David Datunashvili

Full-Stack Developer & Founder, 404 Friends

AI-Native Delivery · Backend, DevOps, Native Software

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Full stack developer and founder of 404 Friends, a software studio with 15 products shipped to production across web, mobile, native desktop, streaming, and AI. Builds AI-native: agentic coding tools are the primary build loop, which is how a static design concept became a production marketplace in under one week and a real-time meeting-AI engine shipped in five working days. Backend depth behind the speed - multi-tenant hosting infrastructure, HLS streaming pipelines, marketplaces, LLM pipelines, and native C++/Win32 software - covering **full-stack development and DevOps** on every project type clients bring, from architecture and API design through provisioning, deployment, and support.

WORK EXPERIENCE

Full Stack Development & DevOps

Jan 2026 - Present

404FRIENDS.GE LLC · DIRECTOR

Full-Stack Development | DevOps & Infrastructure | AI Product Delivery | Technical Leadership

- **Handles full-stack development and DevOps** on whatever a client needs built - web platforms, mobile apps, native desktop software, streaming systems, and AI products
- **Owns the infrastructure side end to end:** server provisioning, Docker, Nginx, CI/CD pipelines, releases, monitoring, backups, and post-launch support
- **Lead** a four-developer team plus QA, owning architecture, delivery, fixed-scope client contracts, and phase acceptance across every engagement
- **Shipped 15 products to production in 2026** - marketplaces, a multi-role super-app, streaming infrastructure, an AI meeting engine, a manufacturing platform, and a native desktop browser
- **Runs an AI-native delivery loop** (Claude Code, Cursor, agentic scaffolding, AI-generated test suites and migrations) that compresses discovery-to-production from months to days without giving up typed, tested codebases

Full Stack Developer

Oct 2021 - Jan 2026

RENODE.SPACE

Backend Engineering | Cloud Infrastructure | Automation & Orchestration | Platform Reliability | 1200+ servers | 500+ clients | < 5 min average deploy time

- **Designed** and built a multi-tenant hosting platform serving **500+ clients across 1200+ servers**
- **Developed** a server orchestration system handling automated provisioning, scaling, and recovery, bringing **average deploy time under 5 minutes**
- **Built** infrastructure APIs powering VDS, web, game, database, and storage hosting services
- **Managed** a production infrastructure with **dozens of nodes and 30+ services** under automated lifecycle management
- **Implemented** RBAC, monitoring, backup automation, and incident response pipelines across the platform

SELECTED RECENT WORK - SHIPPED 2026

CHITI

chiti.com.ge

Delivery, taxi, and classifieds super-app

82 routes | 22 features | 9 entities | 1,775 tests | 6 user roles

- **Legacy modernization and multi-role product design** - one application covering delivery, taxi ordering, and classifieds for six user types, each with its own permissions, screens, and flows
- **Real-time systems** - live order state, dispatch, and driver location kept in sync across clients, with 11 separate sockets unified into a single typed real-time layer feeding the query cache
- **Correctness at scale** - a full JavaScript to TypeScript migration documented in 13 ADRs, backed by 1,775 tests plus strict type-checking and internationalization verification

TECH React Native | Expo SDK 57 | TypeScript | TanStack Query | Zustand | Zod | Socket.IO | Reanimated

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NUDGE ENGINE

client project · 5-day delivery

Real-time coaching AI layer for online lessons

5-day delivery | 20 s detection loop | 3 context scales | 3-model chain

- **Applied LLM engineering on live conversation** - turning a streaming transcript into timely, evidence-backed coaching prompts while the lesson is still running
- **Context modelling under latency pressure** - three time scales - seconds, minutes, and the whole meeting - balanced against cost and response time on a 20-second loop
- **Trustworthy model output** - a detector, specialist, and critic chain with repetition filtering and replay-based evaluation, so the coaching is grounded in what was actually said

TECH Node.js | streaming STT (Deepgram Nova-3) | GPT-class model chain | WebSocket | prompt and eval tooling

AUTOGURUS

autogurusllc.com

Premium automotive marketplace

Delivered in < 1 week | 2 integrated apps | Monorepo architecture | Dark & light themes

- **Marketplace commerce** - vehicle inventory, publication states, media, and buyer leads modelled end to end, with a staff panel the dealership runs itself
- **Authentication and access control** - argon2id credentials, httpOnly JWT sessions, and publication-aware API access so unpublished stock is invisible to the storefront
- **Speed of delivery** - a static design concept taken to a live, cached, fully themed production platform in under one week

TECH Next.js 16 | React 19 | TypeScript | Tailwind CSS v4 | NestJS 11 | Prisma 7 | MariaDB | JWT

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LIVI.PLUS

livi.plus

Real-time multilingual dubbing and multi-stream broadcasting

HLS live delivery | Real-time dubbing | Multi-stream distribution | Automatic retry & recovery

- **Live media engineering** - HLS delivery and multi-stream distribution built for continuous, scalable broadcast
- **Real-time speech and dubbing** - synchronized multilingual audio generated while the stream is running, so viewers hear their own language live
- **Failure handling in streaming pipelines** - retries, recovery, and backpressure so a broadcast survives upstream faults instead of dropping

TECH Node.js | HLS | FFmpeg | SyncWords | WebSocket | queue management

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PORTA PLUS

portaplus.ge

Bilingual manufacturing platform and CMS

51 portfolio projects | 8 service categories | 2 languages | Launched Aug 2026

- **Content operations for a manufacturer** - 51 projects and 8 service categories that the client's own staff publish, reorder, and extend without a developer
- **Bilingual product design** - Georgian and English content modelled in the database rather than duplicated in code, with localized routing and SEO
- **Caching and delivery** - server-rendered pages with explicit invalidation rules through Cloudflare, plus an analytics dashboard the owner reads daily

TECH Next.js | React | TypeScript | Node.js | MySQL | Chart.js | Cloudflare

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DISCORD.GE

discord.ge

Community discovery and growth platform

40+ servers | Discord OAuth2 | Premium tiers

- **Discovery and ranking** - communities surfaced by category, tags, ratings, and activity signals rather than a flat directory
- **Third-party identity** - Discord OAuth2 with server-ownership verification, so only genuine owners can claim and manage a listing
- **Monetization** - promotion tools and premium tiers that let owners grow a community and the platform earn from it

TECH React | Next.js | TypeScript | Node.js | Tailwind CSS

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Also: Rminder - AI-powered wellness and fitness app (React Native, C#, MongoDB, AI integration)

NATIVE SOFTWARE & SYSTEMS

LIGHT BROWSER

lightbrowser.net

Minimal native browser for Windows and Linux · MIT

1.9 MB binary | Windows & Linux | 7 privacy levels | Launched Sep 2026

- **Browser internals** - a native shell embedding the system engines - WebView2 on Windows, WebKitGTK on Linux - instead of shipping a rendering engine, keeping the binary at 1.9 MB
- **Privacy and security engineering** - filter-list ad and tracker blocking, seven privacy levels, Tor and proxy routing, and end-to-end encrypted sync under AES-256-GCM
- **Resource management and distribution** - tab sleeping, lazy session restore, and a resource monitor, shipped as Windows installers and Debian packages with verified auto-update

TECH C++ | Win32 | WebView2 | WebKitGTK | SQLite

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DISKDESK

github.com/ddatunashvili/DiskDesk

Secondary Windows desktop bound to any drive

Any drive | Multi-monitor | Tag-triggered CI releases

- **Windows shell programming** - COM interfaces for context menus, thumbnails, and file operations driven from Python, staying in sync with the live shell as applications install
- **Desktop user experience** - a second desktop bound to any drive, with stacks, pages, auto-organize rules, media wallpapers, and multi-monitor spanning
- **Release engineering** - portable and installer artifacts produced by CI on version tags, with daily update checks against GitHub releases

TECH Python 3.9+ | Qt | Windows Shell APIs | PyInstaller | Inno Setup | GitHub Actions

VIEW CODE ↗

UNFAIR

github.com/ddatunashvili/unfair

Single-file memory scanner for owned processes

Single Python file | 8-64 bit types | ~2 Hz live monitoring

- **Reverse engineering and process memory** - locating an unknown value in a running process, narrowing candidates across successive rescans, and writing it back - the core loop of memory analysis tooling
- **Low-level Windows internals** - direct ctypes calls into OpenProcess, VirtualQueryEx, and ReadProcessMemory/WriteProcessMemory, walking memory regions and scanning across integer and float types
- **Usage and scope** - an interactive shell and web UI with live monitoring and value freezing, built for single-player games and processes the user owns, with an automated test suite against a mock target

TECH Python | ctypes | Flask | NumPy | PyInstaller

VIEW CODE ↗

EARLIER PRODUCTS

MOVIX.GE

Adaptive-bitrate streaming movix.ge

Netflix-style streaming platform

< 100 ms search | Adaptive bitrate | Web & desktop | Released 2025

- **Streaming media delivery** - adaptive-bitrate video with token-gated access, watch history, and profiles, served to web and desktop clients
- **Catalog and recommendations** - automated ingestion of continuous media updates feeding behaviour-based recommendations over a large catalog

TECH Next.js | TypeScript | Node.js | PostgreSQL | Prisma | Redis | Docker

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VERBAL.GE

Anthropic API verbal.ge

Bilingual AI-powered EdTech platform

5 courses | Georgian & English | AI lesson generation | Film-based content

- **Applied AI in education** - film and series content turned into structured lessons - translations, grammar breakdowns, and contextual explanations generated at scale
- **Content pipelines** - an AI lesson-generation pipeline behind a CMS, so 5 courses can be produced and published without hand-authoring every exercise

TECH Astro | TypeScript | Node.js | MySQL | Anthropic API | TMDB API

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AVTONAWILEBI.GE

PayPal payments & RBAC avtonawilebi.ge

Multi-role automotive marketplace

3 user roles | VIP & pay-per-listing | PayPal payments

- **Marketplace roles and permissions** - buyers, sellers, and administrators in one ecosystem under RBAC-based authorization
- **Monetization mechanics** - subscription plans, VIP listings, and pay-per-listing flows with PayPal payments

TECH Next.js 16 | TypeScript | Node.js | MariaDB | Prisma | NextAuth | PayPal

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SKILLS

AI & AGENTIC TOOLS

Claude Code | Cursor | Anthropic API | OpenAI API | Streaming STT | Prompt & eval design

PROGRAMMING LANGUAGES

TypeScript | JavaScript | Python | Go | C++ | C# | PHP

FRONTEND

Next.js | React | React Native / Expo | Astro | Vue.js | Tailwind CSS

BACKEND

Node.js | NestJS | Express.js | Laravel | Flask | WebSocket / Socket.IO

DATABASES

PostgreSQL | MySQL | MariaDB | MongoDB | Redis | SQLite

INFRASTRUCTURE & TOOLS

Docker | Linux | Nginx / Apache | CI/CD, GitHub Actions | Cloudflare, pm2 | Prisma, Sequelize

EDUCATION

ILIA STATE UNIVERSITY

Sep 2024 - Jul 2026

M.S. IN SOFTWARE ENGINEERING

Core coursework: Distributed Systems, Software Architecture, DevOps & Automation, Database Systems Design, Cybersecurity, Machine Learning, Data Analysis with Python, Multi-tier Application Development, Software Verification & Validation, Algorithms & Data Structures, IT Project Management, Systems Analysis

LECTURING

ILIA STATE UNIVERSITY - INVITED LECTURER

2021 - Present

FACULTY OF BUSINESS, TECHNOLOGY AND EDUCATION

MASTER'S DEGREE COURSES

DevOps Technologies & Automation — 6 ECTS · Fall 2026-27

CI/CD, containerization, infrastructure automation and monitoring - fully practical, assessed through quizzes, two midterms and a final.

Mobile Application Programming — 6 ECTS · Fall 2026-27

React Native from components to release, across 8 lab assignments, a midterm and a group application as the final project.

Design Patterns — 6 ECTS · Fall 2026-27

Creational, structural and behavioural patterns applied to real codebases and refactoring work.

BACHELOR'S DEGREE COURSES

Web Programming (ENG) — 6 ECTS · Fall 2026-27, Spring 2025-26

Full-stack web fundamentals - HTTP, server-side APIs, databases and deployment.

Functional Programming (ENG) — 6 ECTS · Spring 2025-26

Pure functions, immutability, higher-order functions and recursion-driven program design.

Data Analysis with Python — 6 ECTS · Fall 2023-24, Spring 2022-23

pandas and NumPy workflows for cleaning, aggregating and visualizing real datasets.

Exploratory Data Analysis — 6 ECTS · Fall 2023-24

Distributions, correlations and hypothesis-driven exploration of messy data.

Programming in Python (GE/ENG) — 6 ECTS · 2022-2024

Core Python - data structures, OOP and problem solving for first-year students.