

Jasur Mavlonov

Full-Stack Python Developer · Backend · Frontend · AI · DevOps

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SUMMARY

Full-stack Python developer with 3+ years of experience who delivers products end to end: UI design, frontend, backend, AI integration and production deployment, all done independently. Recently built a multilingual voice AI museum guide (RAG, LLM, TTS, live avatar), a nationwide road-construction supervision platform with 11-role access control, and an SSR corporate website scoring 99 on Lighthouse. Core strengths: Django/DRF, FastAPI, Vue 3/Nuxt, PostgreSQL, LLM/RAG systems, and Linux servers with GitLab CI/CD.

EXPERIENCE & PROJECTS

AI Smart GID: Multilingual Voice AI Museum Guide

June 2026 – Present

Full-Stack & AI Developer · UzAvtoYo'l · aigid.uzavtoyul.uz

- Voice assistant for a museum info-kiosk: detects the visitor's language (Uzbek, Russian, English) and answers by voice through a talking avatar, grounded in the museum's knowledge base.
- Built the full voice pipeline alone: speech-to-text, language detection, moderation, RAG, LLM answer (Gemini or GPT) and text-to-speech (Azure TTS).
- Anti-hallucination flow: RAG first, then a broadened retry with a background web search; facts are verified against trusted sources, otherwise the system replies "no information" instead of guessing.
- Hybrid retrieval combining vector (FAISS), keyword (BM25) and trigram similarity, robust to names misspelled by STT; every change measured on an evaluation set (hit@k, MRR).
- Parallel web search (Tavily) over trusted sites and the open web with date-aware ranking and number/date/name verification: median sources per answer grew from 2 to 8.
- Streaming live avatar (Anam, WebRTC) with user interruption; billed avatar time cut ~3x.
- Admin panel with roles, statistics and charts, CSV export, knowledge-base editing and Word/PDF upload with automatic indexing.
- Production deploy on Linux (systemd, Nginx, HTTPS, rate limiting), GitLab CI/CD, and a Windows 11 kiosk setup.

Stack: Python, FastAPI, OpenAI, Gemini, Azure TTS, FAISS, BM25, Tavily, WebRTC, Nginx, GitLab CI/CD

Texnadzor: Road Construction Technical Supervision Platform

2026

Full-Stack Developer · UzAvtoYo'l · texnadzor.uzavtoyul.uz

- Enterprise platform for digital supervision of road construction sites across the country, uniting clients, contractors, designers, technical and author supervisors, and management in one system.
- Role-based access control for 11 roles; JWT authentication and registration via activation tokens.
- Site management with region/district filters, participant history, monthly completed work volumes, invoices and commissioning documents.
- Electronic inspection reports with execution tracking and daily auto-generated QR-coded PDFs (cron/systemd); large data volumes optimized with chunking, prefetching and throttling.
- Hierarchical inspection checklists (chapter, section, question).
- Hikvision video integration for live site cameras (cached tokens); designed and documented an external REST API for the management dashboard.
- Excel export (openpyxl) and statistical dashboards by region and site (Chart.js).
- Deployed on Ubuntu with Gunicorn and PostgreSQL; automated deploys via GitLab CI/CD.

Stack: Python, Django 5, DRF, SimpleJWT, PostgreSQL, Vue 3, Vite, PrimeVue 4, Tailwind CSS v4, SCSS, Chart.js, ReportLab/xhtml2pdf, Gunicorn, Linux, GitLab CI/CD

Avtomobil Yo'llari AKT Markazi: Corporate Website

August 2026 – October 2026

Full-Stack Developer · itroad.uz

- B2B corporate website for a state IT services center, with a fully decoupled backend and frontend connected only through a versioned REST API (/api/v1/).
- Django REST API for services, projects, team, news, pages and contact form; trilingual content (Uzbek, Russian, English) via django-modeltranslation.

- Admin panel rebuilt with django-unfold, fully localized to Uzbek, with a statistics dashboard, icon picker and image validation.
 - Nuxt 4 SSR frontend: trilingual routing, SEO (Open Graph, hreflang, JSON-LD, sitemap), automatic WebP image generation.
 - GSAP and CSS 3D animations; 360° panorama viewer in Three.js, lazy-loaded only where needed.
 - Results: Lighthouse desktop 99, CLS 0, 128 KB gzipped JS on mobile, WCAG AA contrast throughout.
 - Deploy: GitLab CI to Linux server with Nginx, Gunicorn and systemd.
- Stack:** Django 5, DRF, Nuxt 4 (Vue 3, SSR), TypeScript, PostgreSQL, GSAP, Three.js, Nginx, GitLab CI

Shukrantour: Travel Management System
Python Backend Developer · [shukrantour.uz](#)

December 2025 – Present

- Designed and developed a full-featured travel management platform.
- Implemented REST APIs for trip planning, booking and travel request management, with backend business logic and validation workflows.
- Built authentication and secure booking flows; integrated the frontend through asynchronous communication.

Microservices Dashboard
Software Engineer · Tashkent

March 2023 – July 2023

- Built a dashboard that consolidates all microservices into a single interface, with login, search and customized Django admin templates.
- Implemented login that grants access only to users present in a designated database.
- Optimized PostgreSQL queries, reducing page load times by 15%.

OPEN SOURCE

PyServeUz: Lightweight Python Web Framework
Author · [github.com/jmavlonov](#)

September 2025 – October 2025

- WSGI-compliant framework built for learning and experimentation; runs on any WSGI server such as Gunicorn or uWSGI.
- Features parameterized routing, class-based handlers, middleware, templates, static files, custom exception handling and a built-in test client.

TECHNICAL SKILLS

Backend	Python, Django 5, Django REST Framework, FastAPI, Celery, Signals, Caching, REST API design, JWT, OAuth
AI / LLM	OpenAI API, Gemini, RAG, FAISS, BM25, Tavily, Azure TTS, speech-to-text, prompt engineering, retrieval evaluation
Frontend	Vue 3, Nuxt 4 (SSR), TypeScript, JavaScript, Vite, PrimeVue, Tailwind CSS, SCSS, GSAP, Three.js, Chart.js, WebRTC
Databases	PostgreSQL, MySQL, Redis, SQLite, Elasticsearch
DevOps	Linux (Ubuntu), Nginx, Gunicorn, systemd, Docker, GitLab CI/CD, Git, AWS, Google Cloud
Also	Java (Spring Boot, Jakarta), C++, PHP, Jasper Reports, multithreading, multiprocessing

EDUCATION

Tashkent University of Information Technology
Bachelor of Computer Science, Information Security · Tashkent

2024