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CV

SHERZODJON ABDUMUTALOV

Professional & Academic Curriculum Vitae

Software Engineering | System Architecture | Technical Leadership

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5+

YEARS IN SOFTWARE

~10

SYSTEMS ADOPTED

2

PUBLIC APP STORES

533

TESTS PASSED

PROFESSIONAL PROFILE

Software Development Team Lead, backend engineer, and solution architect with 5+ years of progressive experience across GovTech, GIS, AgriTech, security/observability, and startup product development. My work combines business analysis, domain modeling, API and data architecture, security-by-design, technical leadership, and production delivery. I have led large modular systems; delivered authentication, hierarchical permissions, regional analytics, billing, and external integration work for Agro Platforma; initiated a reusable logging and fraud-detection platform adopted by approximately 10 information systems; built the backend and web platform for a consumer product released on Apple App Store and Google Play; and completed a publicly reviewed upstream contribution to django-extensions.

CORE COMPETENCIES

System Architecture

Domain decomposition, modular monoliths, multi-tenancy, event-driven processing, API contracts, and reusable platform design.

Backend & Data

Python, Django/DRF, FastAPI, async I/O, PostgreSQL/PostGIS, MongoDB, Redis, ClickHouse, indexing and aggregation.

Security & Reliability

RBAC, regional data scope, JWT/OTP, API tokens, HMAC webhooks, audit, fraud rules, idempotency, queues and monitoring.

Technical Leadership

Requirement analysis, task decomposition, architecture governance, work allocation, code review, migrations, integration and release quality.

Product Engineering

Idea-to-product execution, subscriptions, payments, QR verification, loyalty, real-time communication, analytics, and public app release.

Delivery & Operations

Docker, Nginx, CI/CD, Sentry, production deployment, application-server configuration, migrations, and release coordination.

PROFESSIONAL EXPERIENCE

Oct 2024
- Present

Software Development Team Lead

Single Integrator - UZINFOCOM LLC | Tashkent, Uzbekistan | Full-time, on-site

- Lead backend and solution architecture for complex government and sectoral platforms, including integrated GIS/water-cadastre and end-to-end sericulture operations systems.
- Translate business and institutional requirements into domain boundaries, data models, REST contracts, integration patterns, permission models, background workflows, and deployment strategies.
- Define reusable standards across domains, including UUID identifiers, timestamps, soft delete/restore, audit trails, API responses, pagination, exception handling, serializer patterns, and permission checks.
- Break down business work into technical tasks, distribute responsibilities, guide engineers on difficult components, conduct code reviews, and ensure independently developed modules conform to a unified architecture.
- Coordinate database migrations, cross-module API contracts, integration tests, production releases, and collaboration with infrastructure and DevOps specialists.
- Designed dynamic access-control and regional data-scope models, Redis-backed permission performance, and secure GIS/integration architecture using PostGIS, GeoServer, Go GeoProxy, Celery, RabbitMQ, OneID, UDocs, Docker, Nginx, and CI/CD.

Sep 2023
- Oct 2024

Software Engineer

Single Integrator - UZINFOCOM LLC | Tashkent, Uzbekistan | Full-time, on-site

- Developed scalable and maintainable Django/DRF services and full web applications, including Vue.js interfaces and third-party integrations.
- Implemented multi-schema data isolation using django-tenants and worked with GeoDjango, PostGIS, polygon fields, and GIS-oriented workflows.
- Built asynchronous processing and caching with Celery and Redis, containerized services with Docker, and configured Nginx-based delivery.
- Created reusable components, improved debugging practices, refactored legacy code, and supported CI/CD automation and API design.
- Contributed to Agro Platforma from May 2024 across Django/DRF APIs, OneID/JWT authentication, Redis-cached hierarchical permissions, CropAgro integration, agricultural workflows, billing, and database-side regional analytics.

EARLIER PROFESSIONAL EXPERIENCE

Oct 2022
- Oct 2023

Full-stack Developer / Frontend Web Developer

Thinkland | Tashkent, Uzbekistan | Part-time roles

- Built and optimized Django-based backend systems, responsive interfaces, and API-driven workflows using Python, JavaScript, React, SQL, Celery, Redis, and Docker.
- Designed external-service integrations, collaborated with backend and UX/UI specialists, and improved frontend/backend performance across mobile and desktop experiences.
- Translated product and design requirements into maintainable full-stack web features.

Aug 2021
- Oct 2022

Frontend Developer / Python Backend Intern / Full Stack Engineer

ZAKO IT Academy | Uzbekistan

- Progressed from React frontend development to Python/Django backend engineering and full-stack delivery.
- Built responsive interfaces, database-backed features, and APIs using React, JavaScript, HTML, CSS, Python, and Django.
- Developed a strong foundation in collaborative engineering, version control, debugging, and application performance.

SELECTED TECHNICAL PROJECTS

WaterCadastré - Integrated Water Resources and GIS Management Platform | suvkadastr.uz

Team Lead | Backend & Solution Architecture

Python 3.13, Django 5.2, DRF, PostgreSQL 17, PostGIS 3.5, Redis, Celery, GeoServer, Go, RabbitMQ, Nginx

- Government platform centralizing water resources, hydraulic infrastructure, cadastral land records, statistics, electronic documents, and geospatial data across national, regional, and district levels.
- Designed a domain-oriented modular monolith, PostgreSQL/PostGIS data architecture, GeoServer map publishing, and a dedicated Go GeoProxy to protect credentials, enforce JWT access, and separate GIS traffic.
- Owned domain boundaries, API and security standards, regional RBAC/data scope, integrations, asynchronous workflows, deployment strategy, work allocation, code review, migrations, and release quality.

Agro Platforma - Multi-Stakeholder Agricultural Operations Platform | agroplatforma.uz

Software Engineer | Verified contribution: May 2024 - Mar 2025

Python, Django, DRF, PostgreSQL/PostGIS, Redis, Celery, Django Templates, Bootstrap, JWT, Docker, GitLab CI

- Contributed across backend, API, database, and server-rendered UI layers for crop placement, preferential credit, financing, futures contracts, billing, electronic documents, and operational reporting used by farmers, government organizations, banks, clusters, seed organizations, and insurers.
- Implemented OneID/JWT authentication and hierarchical module/group/role permissions with Redis-cached maps, role-aware routing, dynamic navigation, and organization- and region-scoped access.
- Built crop-placement, cotton futures and credit, billing and activation, and regional drill-down analytics with ORM annotations, filtered aggregates, and subqueries; integrated CropAgro validation and synchronization with persisted delivery states, Celery processing, and improved OpenAPI documentation.

Cocooning - Integrated Sericulture Operations Management Platform

Team Lead | Backend & Solution Architecture

Django 5.1, DRF, PostgreSQL, Redis, Celery, RabbitMQ, Channels, Daphne, Gunicorn, Nginx | OneID, tax, cadastral and UDocs integrations

- Digitizes the complete sericulture lifecycle from cadastral land and mulberry plantations through seed procurement, incubation, farmer distribution, cultivation monitoring, cocoon receiving, grading, pricing, and electronic documents.
- Designed the organization/regional hierarchy, seasonal context, dynamic access model, domain architecture, asynchronous Excel imports, real-time notifications, and multi-signer UDocs workflow.
- Large imports retain row-level outcomes and can automatically create organizations, users, land records, and production assignments from integrated tax and cadastral data.

Centralized User Activity Logging and Fraud Detection Platform

Project Initiator | Team Lead | Backend & Solution Architect

Python 3.12, FastAPI, MongoDB, Motor, RabbitMQ, aio-pika, JWT, bcrypt, hCaptcha, Sentry, Docker

- Identified a recurring internal need and initiated a reusable platform without an external client; it is integrated with approximately 10 information systems.
- Designed RabbitMQ-based asynchronous ingestion, MongoDB collections partitioned by tenant/event/year, filtering, aggregation, configurable indexes, and rule-based fraud detection.
- Implemented severity and incident lifecycle, alert deduplication, HMAC-SHA256-signed webhooks with retry/backoff, and logging-first fault isolation.

Dcard - Subscription-Based Digital Discount and Loyalty Platform

Project Initiator | Technical Product Lead | Solution Architect | Sole Backend & Web Engineer

Django 5.2, DRF, PostgreSQL/PostGIS, Redis, Celery, Channels, ClickHouse, FCM, React/TypeScript, Docker

- Transformed the startup idea into a production platform connecting users, partner businesses, merchant staff, and administrators through subscriptions, discounts, QR verification, loyalty, and analytics.
- Independently designed and implemented the complete platform except mobile clients: architecture, data model, REST APIs, authentication, Multicard payments, QR, loyalty, notifications, WebSockets, analytics, support, tests, panels, and deployment.
- Designed one-time QR tokens, entitlement/usage-limit checks, rate limiting, payment and coin-spending idempotency, PostgreSQL operational storage, and Redis Streams/ClickHouse analytics.

Google Play listing | Apple App Store listing

OPEN-SOURCE CONTRIBUTION

UPSTREAM
MERGE

django-extensions - Django 6 Regression Fixes

Open-Source Contributor | Pull request #1979 | Merged May 21, 2026

- Diagnosed Django 6 compatibility regressions involving four-element signal receiver tuples, repeated RandomCharField pre_save behavior, version-specific CheckConstraint parameters, and AutoField/BigAutoField expectations.
- Prepared backward-compatible fixes, validated them under Django 6.0.3 with 533 passed, 4 skipped, 4 xfailed, and 6 xpassed tests, and adjusted the implementation in response to maintainer feedback.
- The contribution was publicly reviewed, approved, and merged into the upstream main branch, demonstrating compatibility engineering, regression testing, and asynchronous open-source collaboration.

Pull Request #1979 | Verified merged commit

TECHNICAL COMPETENCIES

Programming

Python, SQL, JavaScript, TypeScript; Go-based service architecture and integration

Backend

Django, DRF, FastAPI, Celery, Django Channels, Daphne, Gunicorn, REST API design, asynchronous I/O, OneID/JWT, and external-system integration

Data

PostgreSQL, PostGIS, MongoDB, Redis, ClickHouse, dynamic indexing, partitioning, aggregation, schema design

Messaging & Real-time

RabbitMQ, aio-pika, Redis Streams, WebSocket, Firebase Cloud Messaging, queues, retries, idempotency

GIS

GeoDjango, PostGIS, GeoServer, WMS/WFS delivery, polygon/geospatial data, secure proxy architecture

Security

RBAC, regional/organizational data scope, JWT, OTP, API tokens, bcrypt, hCaptcha, rate limiting, audit, HMAC webhooks, fraud rules, CropAgro, and electronic-document integrations

DevOps & Operations

Docker, Nginx, CI/CD, Sentry, application-server configuration, migration and release coordination

Frontend

React, TypeScript, JavaScript, Vue.js, HTML, CSS, responsive web development

Engineering Leadership

Business-to-architecture translation, domain modeling, task decomposition, work allocation, code review, integration governance, production ownership

Product Engineering

Idea-to-product execution, subscriptions/payments, QR verification, loyalty, analytics, mobile-backend integration, public release

EDUCATION, CERTIFICATIONS & LANGUAGES

EDUCATION

Bachelor of Science - Computer Systems
Networking and Telecommunications
Tashkent University of Information Technologies
named after Muhammad al-Khwarizmi
Graduated Jul 2023 | GPA 4.16/5

CERTIFICATIONS

IELTS - Overall Band 6.0
IDP Education Ltd | Jun 2026
Valid until Jun 2028
IBM Back-End Development
IBM / Coursera | Sep 2025

LANGUAGES

Uzbek: Native
English: B2 / Upper-intermediate
IELTS Overall Band 6.0

ACADEMIC & PROFESSIONAL INTERESTS

- Scalable backend systems and distributed/event-driven architecture
- Software architecture, domain modeling, modularity, and maintainability
- Geospatial information systems, PostGIS, and data-intensive applications
- Information security, audit, access control, fraud and anomaly detection
- Database architecture, indexing, partitioning, and analytical workloads
- Empirical software engineering, open-source maintenance, compatibility engineering, and regression testing
- Product-oriented engineering, startup execution, technical leadership, and team coordination