

Timur Akhmadiev

Result-oriented Python software developer with over 12 years of experience in building maintainable, well-tested programming products

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EDUCATION

Master's degree in Computer Science *Kazan National Research University named after A.N. Tupolev, Kazan, Russia*

September 2008 - June 2014

Institute of Technical Cybernetics and Informatics, Automated Information Processing and Management Systems, 2014

EXPERIENCE

FOODCAST Inc., Palo Alto, US — Senior Python Software Developer

June 2022 - March 2023

Warehouse Management system / Back Office Administration system

Two major gateways that aggregate numerous warehouse management operations and document workflows of the back office

Job description:

- FRIS gateway, which serves as a facade for numerous domain microservices and provides REST API for the UI React application
- WMS gateway, which provides REST API for the UI mobile application used by the warehouse operation team
- warehouse domain service that stores warehouse data
- BPM domain service that holds information about documents
- rider-batching domain service that provides suggestions for orders batching
- tasks domain service that operates on warehouse tasks
- stocks domain service that holds information about inventory balances

Proficient in: FastAPI, SQLAlchemy, asyncpg, Pydantic, aiokafka, Redis, opentelemetry-sdk, Poetry, pytest, aioresponses

SKILLS

High proficiency in Python and web development.

Good knowledge of SQL and database design principles.

Good knowledge of distributed system architecture.

Proficiency in architecture based on ML and automation of ML training

Have experience with Go and JavaScript.

Frameworks:

FastAPI, pydantic, aiohttp, sanic, asyncpg, aiopg, aio-pika, SQLAlchemy, Django, Flask.

DB/Queues/Cache:

Postgresql, Kafka, ClickHouse, InfluxDB, RabbitMQ, Redis.

CI/CD, tools:

Docker, Prometheus, Grafana, Jaeger, git, mercurial, Jira, Bitbucket, GitlabCI, Sentry, Kubernetes, GCP/GCC

LANGUAGES

English (advanced)
Russian (native)

DomClick LLC, Moscow, Russia — Senior Python Software Developer

September 2018 - May 2022

Personal data master management system

Large scope of high load microservices that aggregate, store, and provide access to customers personal data

Job description:

- "blacklist" service that search users by attributes
- UI for "blacklist" service and REST API for other teams
- large tables (700 million rows) no blocking data migrations
- services that provide synchronization for customers with different time zones

Proficient in: aiohttp, FastAPI, aiopg, asyncpg, Pydantic, Prometheus, aioamqp, Jinja2, pytest, aioresponses

Core ML based high load REST service for real estate assessment

Job description:

- training data pipeline for ML team based on airflow
- REST API to ML model
- production metrics and Grafana dashboards

Proficient in: Sanic, aiopg, SQLAlchemy, GeoAlchemy, NumPy, Pandas, scikit-learn, Geopy, pytest

Real estate assessor private account system

UI personal workspace for assessment manager

Job description:

- UI (forms and grids) based on Bootstrap and Jinja
- REST API for assessment application management
- two way SSL auth for external API
- SOAP external API based on lxml
- authorization system for corporate users
- report printing service

Proficient in: aiohttp, aiopg, SQLAlchemy, PyJWT, jsonschema, pytest

ML based real estate photo classification service

Job description:

- RabbitMQ consumer wrapper for ML model provided by ML team

Proficient in: aio-pika, aiohttp, Keras, pytest

BARS Group LLC, Kazan, Russia — Python Software Developer

October 2010 - August 2018

Integration bus system for SIIE provides information exchange with government electronic services

REST API for sending/receiving messages, provides incoming/outgoing messages queue processing, implements packing/unpacking messages with SIIE protocol (subset of a SOAP protocol)

Job description:

- application database and domain model scheme
- asynchronous message exchange with guaranteed delivery (celery, celerybeat)
- API for signing and digital signature verification with OpenSSL and cffi, cryptography bindings
- XMLDSIG signature for soap messages
- parsing and creation of MTOM/XOP optimized HTTP packages (lxml)

REST api (using django-rest-framework)

Proficient in: Django, DRF, Nginx, PostgreSQL, OpenSSL, Docker, Celery, Git, GitlabCI, unittest

Centralized billing and payment services for kindergartens (more than 2000 units)

Job description:

- application database and domain model scheme
- data loaders and exporters from/to large xls files using xlwt/xlrd
- application UI with ExtJS
- integration with local government website via SOAP with soaplib

Proficient in: Django, ExtJs, Nginx, Redis, PostgreSQL, HTML5, CSS3, Sencha ExtJS, RabbitMQ, Celery, Git, unittest

Payroll management service for government-funded organizations

Job description:

- application database and domain model scheme
- application UI with ExtJS
- extensible UI form constructor system for common accounting algorithms with the ability of declarative descriptions

Proficient in: Django, ExtJs, Nginx, Redis, PostgreSQL, HTML5, CSS3, Sencha ExtJS, Git, unittest

Centralized school, kindergarten, college management services

Number of SaaS for educational institutions

Job description:

- partitioning scheme for big tables in PostgreSQL using triggers and consumed by Django ORM)
- sql queries optimizers (using django-debug-toolbar, postgresql Explain Analyze)
- elimination of memory leaks with help of guppy and gc module
- memory consumption optimizers (proper gunicorn configuration, identified bottlenecks on web application layer)
- designed student's portals, curriculum register, teacher's registers
- endpoint data exporters via soap web services (spyne)
- data-mapping transformations (using protobuf)
- multiple print forms (SQL / ORM queries with joins and aggregates)
- enrollment application web-services (spyne, suds)
- notification system – e-mails via smtp lib and sms via smpp

Proficient in: Django, Celery, Nginx, Redis, PostgreSQL, HTML5, CSS3, ExtJS, BackboneJS, jQuery, Git, Mercurial

Online accounting system for e-gov treasury department

Job description:

- complex data migrations with a large amount of data
- designed audit and logging system
- UI for switchable user desktops (used ExtJS, jQuery)
- improved test coverage

Proficient in: Django, Celery, Nginx, Redis, PostgreSQL, HTML5, CSS3, ExtJS, jQuery, Mercurial

Hospital reservation system

Job description:

- invoice template and printing system (DTL, OpenOffice)
- medical staff hiring / dismissal registry

Proficient in: Python, JavaScript, Django, Celery, Nginx, Redis, PostgreSQL, HTML5, CSS3, Sencha ExtJS, AJAX, jQuery, Mercurial

Contribution to the corporate framework for M3:

Achievements:

- developed custom UI combobox component, extended for usage with list view of a registry (ExtJS)
- extended functionality of a declarative grid column filtering system – ability to combine a number of column filters values to a single SQL query
- automated the deployment process of the framework
- developed context declaration for action views

Freelancer projects, Kazan, Russia – Senior Python Software Developer

August 2017 - December 2017

On-board monitoring unit for public transportation vehicles

Monitors vehicle state: speed, velocity, fuel level, tracks geo position
Use IP cameras to provide information about interior and rear camera view

Job description:

- optimized web-camera streaming for the driver view
- implemented NDTP protocol exchange with a dispatcher server
- bound acceleration sensor with C extensions

Proficient in: Flask, Bash, TypeScript, AngularJS, webpack, HTML5, CSS3, OpenStreet maps API, PostgreSQL, Docker, RabbitMQ, Git