

# Timur Akhmadiev

Result-oriented Python software developer with 12+ years' experience in building maintainable and well- tested programming products

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## EDUCATION

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

September 2008 - June 2014

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

## EXPERIENCE

### **DomClick LLC, Moscow, Russia — *Senior Python Software Developer***

September 2018 - PRESENT

#### **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

## SKILLS

High proficiency in Python and web development.

Good knowledge of SQL and database design principles.

Good knowledge of distributed system architecture.

Have experience with Go and JavaScript.

*Frameworks:*

Aiohttp, sanic, fastapi, asyncpg, aiopg, aio-pika, SQLAlchemy, Django, Flask.

*DB/Queues/Cache:*

Postgresql, ClickHouse, InfluxDB, RabbitMQ, Redis.

*CI/CD, tools:*

Docker, Prometheus, Grafana, git, mercurial, Jira, Bitbucket, GitlabCI, Sentry, Kubernetes

## LANGUAGES

English ( advanced)  
Russian ( native)

- 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 smtplib 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*