Foat **Akhmadeev**

Software Developer

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Summary

Software developer with 10+ years of professional experience. Primary focus is on algorithms and project architecture. Main languages are Java, Kotlin and Python.

Experience

F. Trading

Worldwide

Founder — *Sep. 2020 — PRESENT*

A proprietary trading lab.

Lyra Solar

Remote

Senior software engineer — *Jul. 2019 — Oct. 2020*

- Built elasticsearch system for searching equipments for solar design.
- Designed and developed an algorithm for maximizing the roof area available for solar panels.
- Various contributions to help building permit packages.

Related skills: Java, Unit testing, Mocking, Spring Boot, Git, MySql, Elasticsearch, OpenAPI, Postman ITs.

Kapital Trading

Remote

Senior software engineer — *Aug. 2015 — Jun. 2019*

- Contributed to a complex multi-threaded trading system.
- Contributed to an open-source crypto currency library xchange-stream

Related skills: Java, DevOps, Unit testing, Mocking, TDD, BDD, Build automation tools, MySql.

foat.me

Remote

Senior software engineer — *Feb. 2015 — Aug. 2015*

Worked on several projects, listed some notable ones:

- Wrote a book in the fields of computer vision and web development: [1].
- Designed and implemented robust and fast algorithm for multiply chalkboard detection. It works in real-time and processes more than 40 HD images per second on a regular computer. The pixel precision is higher than 90%.
- Created a Java throttling framework from scratch using Spring MVC and AspectJ.

Related skills: Java, DevOps, Unit testing, Mocking, Aspects, TDD, BDD, JavaScript, C++, Spring Framework, OpenCV, Build automation tools, Git, Computer vision, Image processing.

Center for Machine Perception

Prague, Czech Republic

Computer vision researcher — *Nov. 2014 — Jan. 2015*

Worked as a researcher and developer on a project in the field of *Image rectification using vanishing lines and local affine frames*. Notable achievements:

- Designed and developed a line-annotation tool on Matlab.
- Created a test system for vanishing points and lines detection algorithms using C++ and Matlab.
- Improved existing vanishing points detection algorithm.

Related skills: C++, Matlab, Unix, Git, Computer vision, Image processing.

RoadAR

Kazan, Russia

Computer vision developer — *Jul. 2013 — Sep. 2014*

Worked on a RoadAR project. The application warns drivers about traffic-signs and other necessary information. Notable achievements:

- Created a novel algorithm for traffic-sign detection and recognition, which works in real-time on mobile phones. The algorithm showed a superior performance compared to many state-of-the-art approaches. The algorithm is implemented on C++.
- Designed a test system using Java for the traffic-sign detection algorithm.

Related skills: C++, Java, OpenCV, Unit testing, PostgreSQL, Swing, Maven, Android NDK, Boost library, CMake, Git, Computer vision, Image processing, Machine learning.

Digital Zone

Kazan, Russia

Senior software engineer

Apr. 2013 — Jul. 2013

- Managed a small team on a mobile version of ulmart.ru website.
- Conducted technical interviews.

Related skills: Java, MySQL, Spring MVC, Apache Solr, JavaScript, Application servers, Freemarker, Git, Maven.

Digital Zone

Kazan, Russia

Software developer

Sep. 2011 — Apr. 2013

Developed complex services for several high-loaded websites. Mostly worked on ulmart.ru project. Notable achievements related to this website:

- Built a search platform based on Apache Solr.
- Created an asynchronous catalog of goods using JavaScript and Spring MVC.
- Designed and implemented a new database. This helped to remove several bottlenecks and improve the website performance.

Related skills: Java, GWT, DevOps, Spring MVC, MySQL, EJB, Apache Solr, JavaScript, Application servers, Freemarker, Version control, Build automation tools.

Education

Kazan Federal University

Kazan, Russia

MSc in Computer Science

2012 — 2014

advisor: Evgeny Stolov

Fields of interest: computer vision and image processing. Master thesis:

- 3D scene reconstruction from a single view. Resulted in a paper called *Surface Prediction for a Single Image of Urban Scenes*. It was presented in Singapore in 2014 on the SUAS 2014 workshop. The article itself was published in 2015: [2].

Related skills: Matlab, C++, TEX, Computer vision, Image processing.

Kazan Federal University

Kazan, Russia

BSc in Computer Science

2008 — 2012

advisors: Evgeny Stolov; Aleksandr Shlyannikov

Fields of interest: computer vision and image processing, machine learning, web development. Projects:

- Handwritten digit recognition using Java.
- E-library using GWT.

Related skills: Java, JEE, GWT, Computer vision, Image processing, Machine learning.

It& programming skills

Main languages	Java, Kotlin
Data analysis	Python, Matlab, R
Scripting languages	Shell script, JavaScript
Markup languages	XML, JSON, HTML, CSS
Query languages	SQL
Application and web servers	JBoss, Tomcat, Jetty
Revision control	Git, Subversion
Build tools	Maven, Gradle, CMake, SBT
Systems on administration level	macOS, Linux
Other	Scala, C++, Spring Framework, Play framework, OpenCV, Swing, Android NDK, MySQL, PostgreSQL, TDD, BDD
Digital typesetting	TEX, LATEX

Languages

Russian native speaker
English professional proficiency

Publications

[1] F. Akhmadeev, *Computer Vision for the Web*. Packt Publishing, 2015. [Online]. Available: https://www.packtpub.com/web-development/computer-vision-web

[2] ——, “Surface prediction for a single image of urban scenes,” in *Computer Vision - ACCV 2014 Workshops*, ser. Lecture Notes in Computer Science, C. Jawahar and S. Shan, Eds. Springer International Publishing, 2015, vol. 9008, pp. 369–382. [Online]. Available: http://dx.doi.org/10.1007/978-3-319-16628-5_27