# KHOKHLUSHIN MIKHAIL

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Professional software developer/engineer with experience in machine learning (Python), backend (Java/Spring) and frontend (JS/ReactJS) technologies and processes of design, development, testing, deployment, integration and maintenance.

#### **EMPLOYMENT**

Software developer -> Sr. software developer

Wiley

Winter 2017 - Present

Manuscript AI analyzer (May 2019 – Present)

- Engineered and developed a NER service to extract postcodes, department name and other entities from a paragraph with an affiliation: developed scripts to prepare datasets, purified data, trained and improved models, developed an HTTP service and a docker image for future deployment on AWS.
- Developed scripts to automatically prepare data to train an author/affiliations extraction model
- Developed from scratch a model that predicts whether an author in a manuscript is a corresponding one
- Carried out POC experiments: to check if dependency parser can be used to extract funders/grant number info; Argo Workflows and DVC to create data pipelines and version data
- Took part in maintenance: retraining models, changing deployment process, new logging approach adoption, datasets creation

Reviewer finder and journal finder services (October 2017 – April 2019)

- Developed rest services for searching relative journals and reviewers based on the published articles information, integrated them with Jenkins, developed automation tests and deployed to environments
- Conducted technical interviews, leaded/mentored jr/middle software engineers, reviewed code Classification tool (May 2017 – September 2017)

Designed architecture and implemented from scratch a classification tool as a full-stack developer in RactJS/Java Delivery platform (February 2017 – September 2017)

- Developed from scratch a clean-up service to have obsolete data removed using Spring
- Coded business logic for delivering articles' classifications to Literatum system
- Took part in performance, functional, integration and end-to-end testing by writing automatic tests and conferring with QA team

Programmer Virgin Connect Spring 2016 – Winter 2017

Was responsible for servers with Java applications in Moscow Region division of Virgin Connect.

Integration with document management system Diadoc (September 2016 – February 2017)

- Developed a part of logic to export data from Microsoft SQL Server to xml and pdf files Billing admin interface (May 2016 – October 2016)
- Took part in design and implementation from scratch of a billing admin interface as a full-stack developer RADIUS authorization service (May 2016 October 2016)
- Developed an interaction and synchronization logic between the application and databases with users for authentication. Spring framework, Oracle DB as a primary DB with PostgreSQL as a fail-safe DB and Docker for test environment deployment were used.
- Implemented Python scripts for parsing RADIUS logs and store entries on Oracle Warehouse.

Payment system (March 2015 - May 2016)

- Took part in design and implementation from scratch a fault-tolerant payment system as a member of a scrum team using Spring framework
- Developed Python scripts for Nagios to monitor the status of servers with the application
- Backed up the payment system's servers.

User information message (October 2015 – January 2016)

- Full refactoring of legacy code (separated business logic and presentation; integrated project with Maven)
- Developed and introduced a new user interface using Bootstrap framework.

User personal area (August 2015 – December 2015)

- Set up a frontend nginx server
- Automated deployment process on dev, test and production servers using Ansible.

Partner feedback web application (September 2015 – November 2015)

- Enhanced the quality of legacy code and adopted Maven automatic build and deploy
- Integrated partners' requests with Redmine Issue tracker system using REST API.

# Intern consultant -> Jr.

## software developer IBS

Fall 2013 - Spring 2015

Enterprise portal development (November 2013 – March 2015)

- Developed a web application for displaying and editing information about transport using ExtJs and Liferay Portal
- Designed architecture and implemented a gallery component for displaying photos and videos using pure JS and SAP Java stack
- Wrote a portal component for conducting polls using SAP Java Stack.
- Wrote a web service to update spreadsheets using SOAP and SAP Java stack.

### **Automation engineer**

#### **EMICON**

Winter 2012 - Fall 2013

Software system to automate the creation of design documentation (January 2012 – October 2013)

Designed, coded, tested, introduced and maintained a cad software system to automate the creation of design documentation of programmable logic controllers which reduced the time of their development by 30%.

### **EDUCATION**

### **Bauman Moscow State Technical**

#### Moscow, Russia

#### University

Fall 2007 – Summer 2013

Specialist (Master's degree) in Computer systems and networks, June 2013. GPA: 5.0 out of 5

Coursework: Programming Languages and algorithms; Databases; Circuit engineering; Computer networks; Computer systems; Microprocessor Systems; Signals Processing.

Diploma thesis: "Automatic fire suppression system of an acceptance station at an oil refinery plant".

### **Online courses**

Fall 2013 - Present

Algorithms; Web Applications Architecture; Stanford's Machine Learning;

#### **CERTIFICATES**

English

IELTS: 8.0/C1 (L: 8.5, R: 8.5, W: 8.0, S: 7.0)

**March 2019** 

## **ADDITIONAL TECHNICAL EXPERIENCE**

# **Study projects**

- <u>Titanic prediction</u> (Fall 2019) model of the titanic survival problem with 80.3% accuracy on the test set
- MacOS environment (Spring 2019) Ansible playbook to automatically deploy developer's environment
- Key-value cache 3 (Winter 2018) designed and implemented API for a thread-safe key-value cache concept
- Key-value cache 2 (Summer 2018) designed and implemented API for a key-value cache concept
- <u>Todo</u> (Spring 2017 Winter 2017) a web application for getting things done concept. Written in Java (server) and JS (client) with the usage of Spring (Boot, MVC, Security, Data), Hibernate, Maven, Travis CI; React, npm, webpack; Docker
- <u>Powerlifters DB Interface</u> (Summer 2016 Autumn 2016) a web application that shows different ways to connect to a PostgreSql DB from Java and that can be launched without any external dependency on Docker.
- <u>Game server</u> (Summer 2014) implementation of a game server written in Java. This project is developed with usage of: Jetty HTTP server, FreeMarker Java Template Engine, Selenium, JDBC, Hibernate.
- <u>Slideshow gallery</u> (Spring 2014) simple gallery written in pure JS.

• Game XO(Winter 2013) – took part in Android game project. Developed and implemented AI algorithm.

# **SKILLS, LANGUAGES AND TECHNOLOGIES**

- Python, Tensorflow, Spacy, Keras, scikit-learn
- Java, Spring (MVC, Data, Boot, Security), Hibernate; Maven, Gradle
- JS, React
- Linux
- Git; Ansible; Docker, k8s, Vagrant; Atlassian JIRA, Atlassian Confluence; Travis CI, Jenkins
- SQL: MySQL, PostgreSQL
- Tomcat; Nginx