

# Andriy L.

## Senior Data Science / Java Software Engineer

### SUMMARY

• 10+ year experience with JAVA and Linux operating systems: Java 11, Spring Boot, Spring Data JPA, MySQL/MongoDB, ElasticSearch, Jenkins CI • Big Data, Data Engineering, NLP, Corpus Linguistics, ML, DL • Design and implement a distributed warehouse system (AWS migration), REST API design and cache implementation (1,000-10,000 requests/sec), Design and implement high-load microservices • Deliver special courses devoted to concurrency and prepared handbook on “Parallel and Distributed Computations” [technologies: (basics of OpenMP, MPI, CUDA, OpenCL), advanced in Java concurrency]; • Scientific projects at university related research increasing effectiveness of crypto-analysis • Upper-Intermediate English • Available Full-time • Ready to start in 2 weeks • No scheduled vacations within next 3months

### TECHNICAL SKILLS

<b>Main Technical Skills</b>	Java (15 yr.), Hadoop ecosystem, Python (3 yr.)
<b>Programming Languages</b>	Java (15 yr.), OpenCL, OpenMP, Python (3 yr.), Scala
<b>Java Frameworks</b>	Apache Spark, Spring, Spring Boot, Vaadin
<b>Scala Frameworks</b>	Apache Spark
<b>AI &amp; Machine Learning</b>	Apache Spark ML, Deep Learning, Machine Learning, Natural Language Processing, PyTorch
<b>Java Libraries and Tools</b>	FindBugs, Hibernate/JPA, JavaFX, Spring Data, Spring Integration, Spring JDBC, Spring model-view-controller (MVC) framework, Swing
<b>Python Libraries and Tools</b>	NLTK, PyTorch
<b>Data Analysis and Visualization Technologies</b>	Apache Hive, Apache Oozie, Apache Spark, Apache Spark ML, AWS Athena
<b>Databases &amp; Management Systems / ORM</b>	Apache Hive, Apache Spark, Apache Spark ML, AWS ElasticSearch, Cassandra, Hadoop ecosystem, HDFS, HDP, Hibernate/JPA, MariaDB, MongoDB, MySQL, PostgreSQL
<b>Cloud Platforms, Services &amp; Computing</b>	AWS, GCP
<b>Amazon Web Services</b>	AWS API Gateway, AWS Athena, AWS Cloudformation, AWS EC2, AWS ElasticSearch, AWS EMR, AWS Lambda, AWS RDS (Amazon Relational Database Service), AWS S3, AWS SNS, AWS SQS



<b>Methodologies, Paradigms and Patterns</b>	Agile, Scrum, TDD, Waterfall
<b>Deployment, CI/CD &amp; Administration</b>	Ansible, Bamboo, Gradle, Jenkins, OpenVPN
<b>QA, Test Automation, Security</b>	Apache Maven, JMeter, JUnit, Mockito
<b>Message/Queue/Task Brokers</b>	Apache Oozie, Kafka
<b>SDK / API and Integrations</b>	AWS API Gateway
<b>Mail / Network Protocols / Data transfer</b>	BIND, Kerberos, LDAP, MPI, OpenVPN
<b>Platforms</b>	Camunda, Raspberry PI
<b>Third Party Tools / IDEs / SDK / Services</b>	Eclipse, IntelliJ IDEA
<b>Virtualization, Containers and Orchestration</b>	Kubernetes, OpenVPN, Terraform, virtualization
<b>Web/App Servers, Middleware</b>	Nginx
<b>Other Technical Skills</b>	CUDA, FairSeq, Grid Computing, JMH, KeyCloack, Network technologies, PMD, Ranger, Spark MLLib, Spark Standalone cluster, Stanford Core NLP

## EXPERIENCE

### SENIOR JAVA DEVELOPER, CLOUD ENGINEER

2018 – CURRENT

**Responsibilities:** Data analytics platform upgrade (2020-). Design and implement a distributed warehouse system (AWS migration) REST API design and cache implementation (1,000-10,000 requests/sec.) Design and implement high-load microservices.

**Technologies/Environment:** AWS (lambda, API Gateway, RDS, SNS, SQS, EC2, S3), CI/CD (Bamboo, Jenkins), Infrastructure as a Code (Cloudformation, Terraform), Java 11, Spring Boot, Spring Data.

### DATA SCIENTIST, BIGDATA ENGINEER, JAVA DEVELOPER, OWN SCIENTIFIC PROJECT

2018– CURRENT

**Responsibilities:** Data Scientist (NLP, Corpus Linguistics, ML, DL), Big Data, Java Developer, Architect, own scientific research.

**Technologies/Environment:** HDP 3.1 (Spark 2.3), Spark Standalone cluster; Java 8 (11), Spring, Vaadin, Spring Boot, Spring Data JPA, Spring JDBC; Spark MLLib, Stanford Core NLP, Language Tool. Python, PyTorch, FairSeq, NLTK Docker.



## **BIG DATA ENGINEER**

2018 – 2019

**Responsibilities:** Data Management Platform in a hybrid cloud (2018-2019). Architect infrastructure orchestration in hybrid cloud. Data Lake infrastructure design. Design batch and event-driven workflows for big data processing.

**Technologies/Environment:** Google cloud Data and Storage services, AWS, Hortonworks HDP 3.1 (Hive, Spark, Kafka, Kerberos, LDAP(FreeIPA), Ranger), Oozie, Kafka, Apache Spark, Hive, Kubernetes, Linux, OpenStack, Ansible, Terraform, Cloudformation, GitLab CI, Scala, Akka, Python, PostgreSQL, Cassandra, KeyCloack, LDAP, Kerberos, Google Cloud Platform, AWS (S3, EMR, Athena), Java 8.

## **JAVA INSTRUCTOR**

2016 – 2019

**Responsibilities:** Off-line courses. Delivering professional courses and tutoring Junior Software Developers.

**Technologies/Environment:** Java 8, Java 11, MySQL, PostgreSQL, maven/gradle, junit, Spring, mockito, JavaFX.

## **SOFTWARE DEVELOPER**

2017 – 2018

**Responsibilities:** Java Middle Developer.

**Technologies/Environment:** Java 8, Spring MVC, MS Exchange, LDAP (Active Directory), BPS Camunda, PostgreSQL

## **SOFTWARE ENGINEER, DEVOPS**

2015 – 2016

**Responsibilities:** Java Software Development: Java (support and bugfixing Okapi framework) Network administration.

**Technologies/Environment:** Java, bind, nginx, mysql, openvpn, virtualization, AWS EC2, Jenkins.

## **COMPUTER SCIENTIST**

2004 – 2016

**Responsibilities:** Investigator in charge in scientific research projects. Investigations in biometry authentication and high performance computing.

Results: 68 scientific papers (22 sc.articles), 7 copyright certificates, handbook «Parallel and distributed computing» (ukrainian language).



**Technologies/Environment:** Java, C programming (CUDA, OpenCL, MPI, OpenMP), Grid Computing.

## **ASSOCIATE PROFESSOR**

2011 – CURRENT

**Responsibilities:** Delivered and developed courses: Java programming, Parallel and Distributed Computing, System Software, Information Security, Systems of Parallel and Distributed Data Processing Supervising master and diploma thesis. Scientific research. Vice head of department (2015).

## **SENIOR LECTURER (ASSISTANT PROFESSOR)**

05/11/2006 – 2011

**Responsibilities:** Delivered and developed courses: Java programming, Parallel and Distributed Computing, System Software, Information Security, Systems of Parallel and Distributed Data Processing Supervising master and diploma thesis.

## **DEVOPS**

2002 – 2005

**Responsibilities:** Network and System Linux Administrator of SMB offices.

**Technologies/Environment:** Linux, Networking.

## **EDUCATION**

10/10/2020 – 10/03/2021 Ternopil, Ukraine DATA SCIENCE COURSES – Private offline courses

Machine Learning and Deep Learning topics:

- PREPROCESSING DATA
- DECISION TREES
- LINEAR REGRESSION
- LINEAR CLASSIFICATION
- NEAREST NEIGHBORS ALGORITHM
- MULTILAYER PERCEPTRON
- SUPPORT VECTOR MACHINE (SVM)
- BAYES CLASSIFIER
- ENSEMBLE ALGORITHMS
- MATRIX DECOMPOSITION. DIMENSION REDUCTION OF DATA SPACE (practically implemented in own scientific project)
- CLUSTER ANALYSIS AND VISUALIZATION
- CNN
- OBJECTS DETECTION AND SEGMENTATION
- RNN (practically implemented in own scientific project)
- NLP (practically implemented in own scientific project)
- PROBABILISTIC TOPIC MODELING



- COLLABORATIVE FILTERING
- TIME SERIES ANALYSIS AND FORECAST
- ANOMALY DETECTION
- AUTOENCODERS (Sequence to sequence Transformer model used in own scientific project)

Field(s) of study Information and Communication Technologies : Inter-disciplinary programmes and qualifications involving Information and Communication Technologies (ICTs) Passed

- 09/09/2020 – 09/09/2023 CERTIFIED REACTIVE ARCHITECT EXAM V4 – Lightbend

Field(s) of study Information and Communication Technologies : Software and applications development and analysis Database and network design and administration Information and Communication Technologies (ICTs) not further defined [lightbend.com/verity-certification/](https://lightbend.com/verity-certification/)

- 18/09/2018 HADOOP. A SYSTEM FOR PROCESSING LARGE AMOUNTS OF DATA)
- 21/12/2016 DATA ANALYSIS AND STATISTICAL INFERENCE IN R – Prometheus
- 17/09/2016 DEVELOPING A WEB SERVICE IN JAVA (PART 2) – Stepik.org
- 17/08/2016 DEVELOPING A WEB SERVICE IN JAVA (PART 1) – Stepic.org
- 28/09/2015 M202: MONGODB ADVANCED DEPLOYMENT AND OPERATIONS – MongoDB, Inc.

M102: MONGODB FOR DBAS – MongoDB, Inc.

- 06/05/2015 M101J: MONGODB FOR JAVA DEVELOPERS – MongoDB, Inc.
- 2006 – 2011 – Ukraine PHD
- 2003 – 2008 – Ternopil, Ukraine PH.D. IN COMPUTER SCIENCE (MATHEMATICAL MODELING AND COMPUTATIONAL METHODS) – Ternopil State Ivan Pul'uj Technical University
- 1998 – 2003 – Ternopil, Ukraine SPECIALIST (MASTER'S) DEGREE IN SYSTEM ENGINEERING (COMPUTER SCIENCE) – Ternopil State Ivan Pul'uj Technical University

