

# Vaclav Kosar

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<https://vaclavkosar.com/>

## Summary

Strong multi-domain experience in solving challenging problems from 9 years of software, 3 years of machine learning, and big data engineering.

Expertise:

- Software engineering, Python, Java, Scala backend, and frontend
- Natural language processing, Machine translation, Image-text classification, Transformers
- Big data, BigQuery, Spark, Scala, RDBMS

I love understanding and solving business problems and delivering robust machine learning and software solutions quickly while staying up to date, reading research papers, and practicing by building side projects.

## Experience

### Machine Learning Engineer

GLAMI

Mar 2020 - Present (2 years 7 months +)

Researched and implemented major modernization of a large-scale fashion product categorizer and feature detector, applying a multi-lingual image-text deep learning model. Collaborated and coordinated cross-department team to ensure the project's success. The project involved the redesign of Devops and MLOps infrastructure. Additionally contributed to a recommendation system and other ML projects, learning a lot from the domain experts on the team. Gained a good understanding of the business model of e-commerce platforms.

PyTorch, TensorFlow, AWS, Docker, Pandas, NLP, Transformer, CNN, Numpy, e-commerce, Terraform, EKS, Kubernetes

### Software & ML Developer,

Time is Ltd.

May 2019 - Mar 2020 (11 months)

Developed a data processing pipeline from ingestion to analysis heavily using BigQuery for a productivity people analytics startup integrating calendar meetings, message metadata, and organization structure. Researched and prototyped a joint analysis of the organizational structure and meeting frequency to offer a novel view of the problem. Ultimately, interesting deep learning problems at GLAMI outweighed the opportunity to explore this underdeveloped analytics domain.

Pandas, NetworkX, Numpy, Google Cloud, BigQuery, AppEngine, Python, NodeJS, JavaScript

### Senior Software Developer (AVP)

Barclays Corporate & Investment Bank

Feb 2018 - Apr 2019 (1 year 3 months)

Collaborated on development of an Apache Spark big data lineage tracking tool called Spline. Researched and designed lineage tracking for Apache Spark Structured Streaming. Contributed to Apache Spark open source project to enable required integration.

Big Data, Spark, Scala, TypeScript, RxJS, AngularJS, ArangoDB, graph db, data lineage, data provenance, streaming



## **Senior Software Developer (Assistant Vice President)**

Barclays Corporate & Investment Bank

May 2015 - Jan 2018 (2 years 9 months)

Collaborated on development of event-driven micro-service JMS messaging platform "Latitude", including web UI for monitoring, reporting and managing liquidity and credit obligations that allowed Barclays to significantly reduce costs and meet regulatory requirements for Basel III. Additionally implemented one of the first simplified Docker deployment devops tools for Java to OpenShift.

Agile Scrum, Angular 2, TypeScript, Docker, OpenShift v3, Spring Framework, Spring Integration, Solace JMS, SQL, Git, Maven, JBehave, Teamcity, Enterprise Integration Patterns

(Promoted from Analyst to Assistant Vice President Aug 2015)



## **Junior Software Developer**

PHYSTER TECHNOLOGY, a.s.

Mar 2013 - May 2015 (2 years 3 months)

Participated in multiple backend and middleware Java projects as a Junior Software Developer.

Java, Java EE, JBoss 7.2, EJB 3, Hibernate, CMP, Tomcat, Spring, Ant, PGAdmin, PL/SQL, Eclipse, CVS, Jenkins, SOAP UI, Bash

## **Education**



### **Czech Technical University in Prague**

Master's degree, Mathematical Physics

2010 - 2012



### **Czech Technical University in Prague**

Bachelor's degree, Experimental Nuclear Physics

2007 - 2010

### **SPŠST Panská, Prague**

maturita, Digital telecommunication engineering

2003 - 2007



### **Université de Montréal**

One semester.

## Licenses & Certifications



**FCE** - University of Cambridge



**Java SE 6 Programmer Certified Professional** - Oracle  
1Z0-851



**Functional Programming Principles in Scala** - Coursera  
XWRHG8U2P5R4



**Spark - Level 2** - Cognitive Class



**Big Data Analysis with Scala and Spark** - Coursera  
CUHF6UCREUSL



**Scala Programming for Data Science - Level 1** - Cognitive Class  
2bb2e142-5555-45fd-8dd4-3a2e80214459



**Natural Language Processing Specialization** - Coursera  
DT6DWA9XPQKC

## Skills

DevOps • Amazon Web Services (AWS) • MLOps • Transformer • Machine Translation • TypeScript  
• Apache Spark • Data Lineage • Big Data • ArangoDB