

# Grzegorz Szpak

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## EDUCATION

**Master of Science, Computer Science** October 2014 - December 2016  
University of Warsaw, Faculty of Mathematics, Informatics and Mechanics

**Bachelor of Science, Mathematics** October 2014 - September 2016  
University of Warsaw, Faculty of Mathematics, Informatics and Mechanics

**Double Degree Program in Computer Science and Mathematics (first cycle)** October 2011 - July 2014  
University of Warsaw, Faculty of Mathematics, Informatics and Mechanics

- *Bachelor of Science*, Computer Science July 2014

## EXPERIENCE

**Software Engineer** November 2017 - April 2019  
PageBites, Inc. (d.b.a. imo.im)  
Palo Alto, California, USA

- Part of a small team developing a highly distributed, scalable backend for a mobile messaging app, processing 150B requests per day from 200M monthly active users
- Designing and implementing fully asynchronous, efficient microservices in Java and Python
- Playing key role in design and implementation of architecture changes needed for splitting userbase into two data centers
- Implementing auto-reconnecting wrapper for asynchronous Redis client in Java
- Maintaining a Cassandra cluster of 500+ nodes
- Troubleshooting bottlenecks and memory leaks in microservices; tuning GC options for some critical microservices
- Working on migration from Cloudera CDH version 5 to 6 (Hadoop and Kafka)
- Technology stack: Java, Netty, Python, Redis, Cassandra, LevelDB, Zookeeper, Hadoop, Kafka, Puppet, Grafana, HBase, OpenTSDB, AWS S3

**Big Data Engineer / Data Scientist** January 2017 - October 2017  
Growbots, Inc.  
Warsaw, Poland

- Developing and maintaining the main ETL pipeline for Growbots sales automation product using Dataproc, Spark, Python and Airflow
- Developing machine learning models for improving quality of data
- Helping other engineers debug and optimize Spark jobs
- Technology stack: Python (incl. ML stack), Spark, Airflow, GCP (Dataproc, BigQuery, Cloud Storage), PostgreSQL, Elasticsearch, Docker, Flask, Celery

**Software Engineer** January 2016 - December 2016  
DaftCode sp. z o.o.  
Warsaw, Poland

- Developing a real-time bidding platform
- Building various machine learning models for predicting click-through rate in online advertising

- Implementing a bidder service using ML models and pricing strategies to return bid price for a given bid request
- Technology stack: Python, xgboost, scikit-learn, pandas, numpy, C++, RTBkit, PostgreSQL, Redis, Tornado, Pyramid, SQLAlchemy, Docker, Graphite

**Software Engineering Intern** September 2015 - December 2015  
 PageBites, Inc. (d.b.a. imo.im)  
 Palo Alto, California, USA

- Implementing a service for performing scalable and fault-tolerant data migrations between sharded databases (Redis and MySQL)
- Detecting unwanted activities in a social network
- Technology stack: Python, Java, Redis, MySQL, LevelDB, Zookeeper, Grafana

**Software Engineer** October 2013 - September 2014  
 Lex43 Sp. z o.o. (d.b.a. SzybkaPapuga.pl)  
 Warsaw, Poland

- Creating web applications using Pyramid, SQLAlchemy and Ember.js
- Optimizing web server
- Part-time job

**Java Developer Intern** August 2013 - September 2013  
 Computer Networks Department, University of Warsaw  
 Warsaw, Poland

- Creating web applications using Seam, Hibernate, Maven, TestNG and Mockito

## TECHNICAL SKILLS

**Operating Systems:** Unix

**Programming languages:** Java, Python, Scala, C++, C, SQL

**Data stores:** Redis, Cassandra, PostgreSQL, MySQL, LevelDB, Zookeeper, HBase (basics), Elasticsearch (basics)

**Frameworks & libraries:** Spark, Kafka, Hadoop, Airflow, Netty, Python ML stack, Celery, Tornado, Flask, SQLAlchemy

**Tools:** Docker, Puppet, Git, Mercurial

**Other:** Distributed systems, microservices, asynchronous programming, basics of reactive programming, machine learning, big data processing, OOP, algorithms, solid mathematical background

## COURSES

**Big Data Analysis with Scala and Spark** August 2019  
 Coursera - École Polytechnique Fédérale de Lausanne

**Functional Programming Principles in Scala** August 2019  
 Coursera - École Polytechnique Fédérale de Lausanne

## AWARDS

Finalist of LXII Polish Mathematical Olympiad 2011  
 Finalist of LXI Polish Mathematical Olympiad 2010