Lukasz Tymoszczuk

lukas@codeily.com | lukastymo.com

I am a Scala Engineer with over twelve years' experience. I love algorithms and problem-solving.

I am goal oriented, proactive and able to work remotely, with outstanding communications skills.

My business experience: Legal (ISDA negotiation), Logistics (travelling salesman problem), Finance (FRTB, Risk DSL for quants), Energy sector, Public sector, Aviation.

My after-work activities:

- My homepage and blog: lukastymo.com
- Studying remotly MBA, engaging in small side projects
- Competitive Programming (codeforces), stackoverflow.com/users/574799/smas (top 2%)

Technical experience:

- Scala (Functional Programming), Java (SOLID, OO), JVM
- Big Data/ML: Apache Spark, HDFS, ETL, SQL, Docker, Python, Jupyter Notebook
- DevOps & Cloud: AWS, Ansible, Terraform, Grafana, Docker and Kubernetese, ELK
- Distributed Systems: Akka, Microservices, Event-driven architecture
- Agile practices: CI/CD, TDD, Pair Programming, Code Review, teaching

Education

- M.S., Computer Science, Jagiellonian University, 2005 - 2010, Krakow, Poland
- M.S., MBA, University of Illinois Urbana-Champaign, 2019 - present, USA

Lead Scala Developer (contract)

HM Revenue & Customs (Mercator IT) | AEO MRA (Brexit) October 2020 – Present, London, UK

- We worked on Authorized Economic Operator data conversion between EU and GB.

Tech stack:

- Functional Scala, Play, Cats, Scalaxb, Microservices
- REST, SOAP, HMRC Tax Platform, Monitoring tools

Paternity Leave

January 2020 – October 2020

Senior Scala Developer (contract)

Linklaters | Nakhoda November 2018 – December 2019, London, UK

- We worked on the new way of negotiating the International Swaps and Derivatives Association (ISDA) documentation. nakhoda.ai

Tech stack and activities:

- Functional Scala, Cats, Monix Tasks, Doobie
- PostgreSQL
- TDD, Automated tests
- Kubernetes, Docker, On-premise Cloud
- REST, API versioning, Swagger, Database migration
- I worked closely with our DevOps team as a part of the release rota (releases and hotfixes)

Data Engineer (contract)

Royal Mail / GBI May 2018 – November 2018, London, UK

- I was part of Data Engineering team. I developed Data Platform and data algorithms on it which transformed the whole business and allowed releasing multiple great products. I advised and recommended best practices in Scala, Agile and Software Development, Architecture.

- I implemented opt-1, opt-2 and opt-3 heuristic to solve VRP (Vehicle routing problem). This algorithm was essential for Royal Mail business, as it is unpractical to solve this task manually. Thanks to this algorithm another project "Late Arrival Packages" was able to kick off.

- I developed parcel delivery project which processed terabytes of data in a few hours. I was responsible for productionizing (porting from POC Python code to Scala) and implemented new features for Machine Learning modules: Train, Test, Post-process and Formatter. This project was able to predict 90% of all packages UK-wide with 2-hour precision.

Tech stack:
- Scala (main production language), Python (PoC)
- Apache Spark (Spark SQL), Yarn, HDFS, Linux, Apache Zeppelin,
- TDD, Kubernetes, Docker, Akka-HTTP, MongoDB, Cats
- On-premise Cloud
- REST, Swagger, Gatling

Big Data Developer (contract)

IHS Markit / Risk Factor Utility (FRTB) September 2017 – May 2018, London, UK

- I productionized Spark application on AWS (S3, EC2, EMR) with strong automatization requirement via Ansible and CloudFormation. Due to this change deployment across environments was consistent and automated, so everybody on the team could do this by clicking one button in Jenkins.

- I was part of the team which implemented very popular, and in-demand project required transforming the significant amount of raw market data into FRTB-compliant risk factors and scenarios by using DSL language for risk modelling.

- I helped developing functional Scala project, which the main module was a custom DSL language used by Quants. Thanks to this feature, our quants were able to produce FRTB solutions presented for multiple banks.

Tech stack:
- Scala, Cats, Monix Tasks, Apache Spark, Hadoop, Cassandra
- AWS (EC2, S3), Cloud Computing, EMR, Yarn
- Apache Zeppelin, CI / CD, Ansible, Git workflow

Software Engineer (contract)

OVO Energy / vCharge April 2017 – September 2017, London, UK

- vCharge was a startup acquired by Ovo Energy. The idea was to control storage heaters installed in people homes. I worked with the owner, who was located in the US (~ daily one-to-one online meetings). I had a high impact on stakeholders. Throughout a couple of months, I was the only Scala developer.

- I built a module to forecasting Energy prices using the Dijkstra algorithm and mathematical model created by Data Scientists. It allowed buying energy cheaper and "store" in the customers' storage heaters.

Tech Stack:

- Scala, Python, Akka, Play Framework, Lagom Framework, CQRS / Event Sourcing, Cassandra

Scala Consultant (contract)

Civil Service Resourcing (Valtech) / Faststream, Fasttrack February 2016 – April 2017, London, UK

- I developed an auto-grader module inside the web-based application deployed on HMRC's Tax Platform. The module allowed to assess and send emails to 120,000 candidates in a day-scale vs month-scale in the legacy system.

Tech stack:

- Scala, Play framework, RESTful API, MongoDB, Cucumber, ScalaTest, Property-based testing
- Microservices, Kibana, Grafana, HMRC Tax Platform

Senior Software Engineer

Monitise / FinKit platform, Matm August 2013 – February 2016, London, UK

- After a year of developing OSGI, Java platform for multiple financial institutions I was moved to brand new cloud platform with Scala, Akka, Microservice architectures: FinKit.

Tech stack:

- Scala, Akka, REST: Spray, Swagger (generator),
- IBM Cloud stack, Apache Camel, Modularization: OSGi, Messaging: JMS, REST, SOAP, SOA

Full stack Java Developer

Sabre Holdings November 2010 – August 2013, Krakow, Poland

Full stack Java Developer

ComArch June 2008 – November 2010, Krakow, Poland