# Milan Aleksić

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#### Personal

Born on 21/12/1983, Smederevo (Serbia), living in Koekelberg (Belgium) since 2011. I have dual citizenship of Belgium and Serbia.

My website is aleksic.dev, email is milan@aleksic.dev and Twitter account is: milanaleksic. I am fairly active on github.com/milanaleksic. I also have a LinkedIn account if you'd like to connect with me. My public GPG key is: 0xDF7A2E812429D391.

#### Education

Dipl. Ing. Computer Science & Engineering (2008) from *University of Belgrade* (Serbia), Faculty of Electrical Engineering (ETF)

"NARIC – Vlaanderen" recognized diploma as M.Sc.

### Spoken languages

- Serbian (mother tongue)
- English (fluent)
- **Dutch** (C1 Effectiveness 1, explained in Common European Framework of Reference for Languages and NT2 providers)

### **Keywords**

Java, Go, AWS, Python, PostgreSQL, JavaScript

### Experience

# Senior Software Engineer @ SodaData (Belgium)

Place: Remote/Brussels, Belgium

Period: **2020-...** 

Projects:

- soda.io Cloud/Enterprise Backend engineer
  - Cloud development on AWS using Terraform
  - Broad data sources coverage: MySQL, PostgreSQL, Redshift, Athena; Spark
  - Tasked with feature development planning & implementation guidance, integration, reliability and other operational concerns;
  - Programming languages: Java 11 and Python 3

# Expert Software Engineer @ TomTom (Belgium)

Place: Ghent, Belgium

Period: 2017-2020

 $\begin{tabular}{ll} \textbf{CCE Team} & \textbf{Feature development and maintenance of various core systems and applications in $MPU$ Core \\ Coverage Creation & Extension team \\ \end{tabular}$ 

#### Projects:

- *MLF library*: authored code-generated Java wrapper around GDAL OpenFileGDB (later extended to PostGIS and GeoPackage).
  - Custom ANTLR grammar for extended validation, Python/Markdown doc generator
- Sinatra: Led migration of a complex process into AWS for GIS source data digestion
  - PostgreSQL RDS, Spring Boot 2, SQS, ECS, Terraform, Vue.js
- Pupin: created machine learning cloud service for data classification (plural junctions problem)
  - Training: PostGIS, Python, Scikit-Learn, XGBoost, (Geo)Pandas, Jupyter
  - Online+Batch prediction: Terraform / AWS ECS, Spring Boot 2, XGBoost, REST
- Dumbo: migration of internal heavily used batch processing tool into the cloud
  - AWS Batch, ECS, PostgreSQL, S3, X-Ray; Spring Boot 2, Terraform, Python, Jenkins
- Excelsior: process orchestration service
  - States Language implementation (spec only), ECS+Lambda, Java 11, Python 3

**Hermes team** Feature development on new long-term systems and applications in *Hermes* team Projects:

- Nozem: always-up-to-date source ingestion service into core TomTom data layer
  - Kafka, PostgreSQL, Python, Spring Boot, Jenkins
- Lego: automated map features ingestion
  - Kubernetes on Azure Cloud, Python, Java, QGIS Python plugins

# {Senior, Lead} Software Engineer @ Basware (Belgium)

Place: Aalst, Belgium

Period: **2013-2017** 

#### Projects:

- Basware Network Portal: Full-stack development role on online and internal services
  - Play2, Scala, Java8, MongoDB, Spring, Chef, Go
  - Rewritten core validation business rules implementation (Java)
- Basware e-Archiving: DevOps lead-in-charge and one of lead developers
  - CloudFormation, Jenkins, Bash, AWS CLI
  - Java Lambda functions, API GW, S3, DynamoDB, SQS, Splunk
- Norsu: Introduced cross-systems end-to-end testing
  - Groovy, Cucumber, Gradle
- Business Metrics dashboards
  - Akka (Scala) and Dashing.io (Ruby)
- Migration of legacy Resin applications to Tomcat cluster
  - Oracle, JSP, RMI, Ant, Tomcat, Apache2
- HAL9000: Flowdock bot (CI/CD automation helper for 100+ developers)
  - Go

#### Freelance Consultant

Place: **Remote** (part-time job)

Period: **2014**Projects:

- Support migration of einstants Flash to HTML5 (Script#, Grunt, RequireJS, Karma)
- Various tasks related to new Switzerland Lottery's online game LotoExpress

# Software consultant @ Cronos (Belgium)

Place: Brussels, Belgium

Period: 2011-2013

Projects:

- Interwoven TeamSite consultancy in BNP Paribas Investment Partners
  - Full-stack maintenance of global portal www.bnpparibas-ip.com (Java, Oracle, XSLT, Perl, JavaScript)
  - Server Synchronization: tool for content synchronization analysis over Solaris systems (Java)

## Software Engineer II @ Gtech G2 Sports Betting

Place: Belgrade, Serbia

Period: 2009 - 2011

Projects:

- WARP Framework
  - Core engineer (front-end and backend in Script#/C#)
- Lottery Players' portals projects
  - Chilean National Lottery (www.polla.cl)
  - Belgian National Lottery (www.e-lotto.be)
- $\bullet$  Distribute Warp Component
  - Microsoft Visual Studio developer tool for immediate development cycle feedback (C# / Groovy for backend server)
- CipDroid: Android application for internal issue management system

### Software Developer @ Arius (Serbia)

Place: Belgrade, Serbia

Period: 2007-2009

Projects:

- TMS (Terminal Management System)
  - Evolution of payment transaction system for POS terminals (Java, WebSphere, Oracle)
- SMS dispatcher
  - Dispatching of bank notifications via SMSC / GSM modem (JMS, Spring, WebSphere 6, Oracle)
- MRS (Mobile Recharge System)
  - Mobile top-ups Java server transaction application (Java, JPOS Q2, WebSphere)
  - Offline vouchers project for Nigerian market (Java, C)

## Intern software developer @ ESAProjekt

Place: Katowice, Poland

Period: **2006**Projects:

• Usage of iOmniscient video recognition software for parking lots (C#)

## Selected open source projects

- thoughttrain.app (Go, PostgreSQL, ANTLR, Vue.js, Bootstrap; BADUC)
  - Feature-rich web page content extraction and knokwledge graph service
  - Search Query grammar, Pulumi-based AWS cloud setup
  - (closed source) mobile applications built using Flutter (Android, iOS)
- Personal Web site (Hugo, Netlify)
- Advent of Code 2018 (Go)
- gomakefiles (Makefile, Bash)
  - Reusable Makefile files which allow cross CI/CD Go compilation with many useful tools
- Igor (Go Lambda, Vue.js, Google+, CloudFront, Cognito, DynamoDB)
  - "I am away" Flowdock bot, deployed via Semaphore.ci + CloudFormation
- Clici for Jenkins (Go)
  - Customizable Jenkins neurses-like command line tool to follow Jenkins jobs
- Baobab (Java)
  - JSON-to-SWT mapping and annotation-driven MVC GUI framework
- MtsCheckAccount (Java, GNU RxTx)
  - GUI application for executing USSD via AT commands on USB 3G modems
  - Supporting modems ZTE MF622 and Huawei E1550 on Windows and Linux

#### Selected closed source personal projects

- Home Laboratory
  - Cluster of 8+ hybrid (ARM 5/6/7, amd64, cloud instances) servers and 3 switches
  - Chef (Zero) used for config mgmt, Gitea as git repo
  - Monitoring via Grafana, InfluxDB, Grafana Loki and Tempo
- BADUC (Bastion+DroneCI+Usher+Consul; also Chef, Gitea, SystemD)
  - CD system for artifact deployment in my home network
  - Uses self-developed Go microservices like Bastion (HTTP server endpoint to trigger deployment),
    Usher (node agents that execute deployment)
  - Deployment workflow handled via combination of DroneCI (or Semaphore CI) Consul, SystemD and Chef
- Batler (Go, BADUC)
  - Telegram bot I use for home automation tasks like turning on/off my workhorse laptop, Windows
    VM
  - Used as on-prem notification bridge for Synology and all other services
- Novinarnica Download (Scala, Akka, Spray.io, Google OAuth&GMail, Pushbullet)
  - Content crawler and CBR packager of magazines from www.novinarnica.net
- Movie Catalog System (Java, Baobab)
  - Catalog program for movie collections for Windows and Linux (SWT, Hibernate, H2)
  - TMDB integration (find-a-movie, posters, IMDB links)
  - Custom SWT components for UX, multi-master optimistic replication via vector clocks,
  - Versioned database alteration and restoration from backup
- Collaborative Utilities Concept (Java, Baobab)

- Platform for integration of numerous (thirteen) tools (SWT, Smack, JMF...)
- Including Jabber bot, scheduled SQL firing, ISO8583 message parser etc

# Miscellaneous

#### Public talks

(BeScala) Introducing a reactive Scala-Akka based system in a Java centric company
 with Jeroen Verellen, 2015

#### Courses

- Coursera, Functional Programming in Scala (with Martin Odersky) (2012)
- Coursera, Algorithms 1 & Algorithms 2 (with Robert Sedgewick) (2013)
- Coursera, Pattern Oriented Software Architecture (with Douglas Schmidt) (2013)
- 10gen, MongoDB for Java Developers (M101J) (2013)
- Coursera, Principles of Reactive Programming (with Odersky, Meijer & Kuhn) (2014)

#### Awards

- Gtech Silver Building Excellence Award (2009)
- Gtech Gold Building Excellence Award (2010)

#### Certifications

- Oracle Certified Professional, Java Programmer 6 (OCPJP 6) (2011)
- Oracle Certified Professional, Java EE 5 Web Component Developer (OCPWCD 5) (2011)
- Oracle Certified Expert, Java EE 6 Java Persistence API Developer (OCEJPA 6) (2012)

#### Recommendations

- Recommendation by prof. Igor Tartalja (Belgrade ETF)
- Recommendation by Rafal Dunal (internship in Poland)
- Additional recommendations on my LinkedIn profile