## 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.

#### 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)

## **Keywords**

Java, Go, AWS, Python, PostgreSQL, MySQL

### Experience

## Senior Software Engineer @ Soda (Belgium)

Place: Remote/Brussels, Belgium

Period: **2020-...** 

#### Projects:

- soda.io Cloud Backend (founding) engineer
  - Programming languages: (mostly) Java, Python and cloud development on AWS using Terraform
  - Tasked with backend feature development, guidance and documentation. One of the first engineers and therefore I witnessed most of pivoting, market adaptations, surprising platform usage patterns, product evolution, became the company MySQL perf guy...
  - Deep observability setup via DataDog, incident management and other operational concerns of the Soda Cloud (handed over to dedicated personnel as we grew)
- Tool maker role:
  - deep incident analysis tools (Golang) using profile tracer for deadlock analysis, log processing pipelines, SQLite exporters
  - internal dopy tool (Python) for various devops/security tasks on top of Okta and boto3
- Broad exposure to data sources while helping bootstrap Soda SQL: PostgreSQL, Redshift, Athena, Spark

# Expert Software Engineer @ TomTom (Belgium)

Place: Ghent, Belgium

Period: 2017-2020

**CCE Team** Feature development and maintenance of various core systems and applications in MPU Core Coverage Creation & Extension team

#### 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 OpenStreetMap ingestion service into core TomTom data layer
  - Kafka, PostgreSQL, Python, Spring Boot, Jenkins
- Lego: automated OpenStreetMap 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

# Previous work experience

**2014**: Freelance Consultant (remote) @ Gtech UK (Brussels, Belgium)

**2011-2013**: Software consultant @ Cronos (Belgium) (*Brussels, Belgium*)

2009-2011: Software Engineer II @ Gtech G2 Sports Betting (Belgrade, Serbia)

2007-2009: Java Developer @ Arius (Belgrade, Serbia)

**2006**: Intern software developer @ ESAProjekt (Katowice, Poland)

## Selected open source projects

- Github Helper CLI (Rust, Github API)
  - epic issues dependency graph handling, branch names and other "my flow" helpers
- Personal Web site (Hugo, Cloudflare Pages)
- 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

## Selected closed source personal projects

- Home Laboratory
  - Cluster of 7 hybrid (aarch64, amd64, on premises and on cloud) servers and 3 switches
  - Ansible for bootstrapping, Nomad/Consul for container scheduling, Gitea as git repo
  - Monitoring via Grafana, InfluxDB, Grafana Loki and Tempo
  - replaced self-made deployment platform BADUC (Bastion+DroneCI+Usher+Consul around Chef, Gitea, SystemD)
- Thought Train (Go, PostgreSQL, ANTLR, Vue.js, Svelte, Flutter, Bootstrap)
  - Feature-rich web page content extraction & book annotation distributed service
  - Search Query grammar, Pulumi-based AWS cloud setup
  - mobile applications (Android, iOS) and Chrome Extension
- Batler (Go)
  - Telegram bot I use for home automation tasks like turning on/off my workhorse laptop, Windows  $_{\rm VM}$
  - Used as on-prem notification gateway for Synology and all other services
- Novinarnica (Go, Google OAuth, Batler)
  - Content crawler and CBR packager of magazines from www.novinarnica.net
  - deprecated NovinarnicaDownload (Scala, Akka, Spray.io, Pushbullet)

## Miscellaneous

#### Public talks

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