

# 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](https://aleksic.dev), email is [milan@aleksic.dev](mailto:milan@aleksic.dev) and Twitter account is: [milanaleksic](https://twitter.com/milanaleksic). I am fairly active on [github.com/milanaleksic](https://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; [explanation link](#))

## 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 MySQL advanced user...
  - Deep observability setup via DataDog, incident management and other operational concerns of the Soda Cloud, handed over to dedicated personnel as we grew; I made various deep analysis tools in Go like timeline diagrams for deadlock analysis, log processing pipelines
- Created in Python internal `dopy` tool for various devops/security tasks on top of Okta and boto3
- Broad data sources exposure 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 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](http://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](http://www.polla.cl))
  - *Belgian* National Lottery ([www.e-lotto.be](http://www.e-lotto.be))
- *Distribute WarpComponent*
  - 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:

- Case study of iOmniscient video recognition software application for parking lots (C#)

## 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
- [Clcli for Jenkins](#) (Go)
  - Customizable Jenkins ncurses-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 7 hybrid (aarch64, amd64, on premises and on cloud) servers and 3 switches
  - Ansible for bootstrapping, Nomad/Consul for job scheduling, Gitea as git repo
  - Monitoring via Grafana, InfluxDB, Grafana Loki and Tempo
- Thought Train (Go, PostgreSQL, ANTLR, Vue.js, Bootstrap)
  - Feature-rich web page content extraction and knowledge graph service
  - Search Query grammar, Pulumi-based AWS cloud setup
  - mobile applications built using Flutter (Android, iOS)
- 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
  - Fully deprecated and replaced with Home Laboratory v2
- Batler (Go)
  - Telegram bot I use for home automation tasks like turning on/off my workhorse laptop, Windows VM
  - Used as on-prem notification gateway for Synology and all other services
- NovinarnicaDownload (Scala, Akka, Spray.io, Google OAuth&GMail, Pushbullet)
  - Content crawler and CBR packager of magazines from [www.novinarnica.net](http://www.novinarnica.net)
  - Fully deprecated and replaced with Novinarnica v2 which is fully Go
- 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](#)