# LUKA JOVIČIĆ

A Belgrade, Serbia

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# **EXPERIENCE**

### **SOFTWARE ENGINEER | CENTILI**

Aug 2019-present

**JUNIOR** 

INTERN

Ост 2019-Ост 2021

As a part of the core engine team, I've had the chance to upgrade and maintain a live production system which processes over 1.5 million payment transactions daily. My main projects are building and maintaining a custom API Gateway project and containerizing and upgrading the CI/CD pipelines and monitoring stack. I've also had the chance to work with Cloudflare Workers serverless platform to cut loading time of payment pages for up to 2s. More recently, I was a part of a strike team which developed new microservices for various business needs. I've also taken a significant part in developing a multi-tenant storefront app and adapted existing infrastructure to enable a successful launch on GKE, making it our first service to go live on the cloud.

# FORMAL EDUCATION

#### **FACULTY OF MATHEMATICS**

University of Belgrade BSc Informatics, 240ECTS | Oct 2018-Jun 2022

I'm an informatics graduate of Faculty of Mathematics in Belgrade. Over

the course of my studies, I've developed a configurable flight path simulator in Python, a bouncing ball animation in OpenGL (pairwork), a Git GUI in Qt (team) and a web app which builds a dev profile in Node.js/Angular (team).

#### MATHEMATICAL GRAMMAR SCHOOL

SEP 2014-Jun 2018

I graduated from a school with High National Distinction status, specialized for mathematics. My graduation thesis on data scraping and analysis was selected as one of the best informatics theses for school year 2017/18.

# **EXTRACURRICULARS**

### WIKI AMBASSADOR | WIKIMEDIA SERBIA

Dec 2018-present

As a student Wiki ambassador, I've worked with other Wikimedia volunteers, established new partnerships between Wikimedia Serbia and teachers and professors, envisioned student projects which contribute to Wikipedia and Wikidata, hosted workshops, and overseen and assisted in students' work.

#### CS WEEK AT MGB (2018)

I held a lecture on exploratory data analysis at 2018 edition of Computer Science Week at Mathematical Grammar School for students. I've built a demo web app written in R available on my GitHub.

### ENGLISH LANGUAGE CONFERENCES

I've co-authored and presented papers (with high school teacher and peers) on Canadian film and teaching English as a second language at two international language conferences in Belgrade (2017) and Celje (2018) respectively.

# TECH STACK

Main toolbox: Java, Spring Boot, Docker, Jenkins, PostgreSQL, Kubernetes, Kotlin

Familiar with: C, , Bash, Python, R, Android, JavaScript, GCP, WildFly, LATEX

Experimenting with: Scala, Go, Cloud Native Buildpacks, Redis & Sentinel, distributed computing, Prolog, C++

Curious about: Rust, GraphQL, big data

# INFORMA DUCATION

#### **Petnica Summer Insitute** Machine learning, 2019

I've participated in an intensive 10-day bootcamp on machine learning, organized by Microsoft Development Center Serbia and Petnica SC. After partaking in lectures and workshops, I've worked on a project which used a conditional generative adversarial network to generate metal album cover arts. Our testimonial is featured on the PSI:ML website.

### **Petnica Science Center**

Psychology seminars, 2017–18

I've taken part in various lectures and workshops about research psychology. After writing practice papers and projects, I spent one year working on my own research on the role of emoticons and emojis in nonverbal irony, presented at the annual "Step Into Science" conference and published in Petnica Papers.

# JCon

Online conference, 2020

I've attended one of the largest Java conferences, learning about the future of Java, trends in microservice development in 2020, best testing practices and pathways to cloud native apps. My notes are available on Gist.

National scholarship for students (2019/2020, 2020/2021, 2021/2022) by Ministry of Education, awarded to higher education students which maintain exceptional GPA (9.0 or higher out of 10) and have maximum study efficiency.

Award for best students of Pančevo (2022) by City of Pančevo, awarded to top 29 students for academic excellency.

# SELECTED PROJECTS

# STORIES | Library & Android app 🗘 🖨

Java Android Play! Framework PostgreSQL

App for creating, sharing and playing choose-your-adventure stories. I've designed a simple procedural language for storytelling and implemented a platform-agnostic interpreter (open source). Android app (proprietary) features a code editor, a visual story editor and an online marketplace. It won Special prize for innovativity at Telekom Srbija Regional App Challenge 2018.

# UPIS SUITE | DESKTOP & WEB APPS ???

Java Play! Framework Swing PostgreSQL Javascript

Three apps designed to work together in order to collect and interpret data about Serbian primary schools. I've built a scraper which collects students' grades and graduation data, enrolment simulator with support for custom rules, SQL-like data plotting language, web frontend for plots, performant plotter in Swing (able to handle and modify over  $10^5$  points) and a visual query builder for desktop. Data and code is freely available on my GitHub.

# CHAT SURVEYS | WEB APPS (?)

R Tidyverse PostgreSQL Java Spring Boot

A set of apps which transform surveys to conversational format, using Facebook messages as proof of concept. My role was focused on interpreting existing engagement data and building dashbord for future analytics in R's shiny framework, supporting simple plots as well as inference methods such as linear regression and PCA. The project won 3<sup>rd</sup> prize at RAF Hakaton 2019.

# VIDEO COMPRESSOR | WEB APP ()

Kotlin Spring Boot PostgreSQL ffmpeg

A web app which transcodes videos using x265 codec and applies size optimizations for video and audio data. It can use one or more worker nodes to speed up the process, as well as act as a worker for configured master nodes.

CV | Interactive document ()

LATEX Font Awesome

I've designed, made-up and built this very document on top of LaTeX's minimal document class. It makes use of interactive PDF features which are not universally supported (e. g. in browsers), but falls back gracefully.

# MORE PROJECTS CLICK THE **1**

NOTEKEEPER | Android app 🏟 🔕

Java Android Play! Framework PostgreSQL

MINIMALHTTPCLIENT | JAVA LIBRARY (?) (\*)

Java

LAB INVENTORY | WEB APP (?) ()

Kotlin Spring Boot PostgreSQL Thymeleaf

BG BUS | Android APP (?) ()

Java Android

# **COMPETITIONS**

RAF Hackathon (team, 2020) 3<sup>rd</sup> prize for <u>Chat Surveys</u>

Telekom Srbija Regional App Challenge (2018) Special prize for Stories

> **RAF Challenge** (2017) Finalist with UpisDesktop

mt:s App Competition (2016) 2<sup>nd</sup> prize for Notekeeper

mt:s App Competition (2015) 2<sup>nd</sup> prize for BgBus

National programming competitions (2014–2017) Qualified to the national level

National programming competitions (2012–2014) Qualified to Serbian Informatics Olympiad

National programming competitions (2011/12) 3<sup>rd</sup> prize at National competition

# **INTERESTS**

**Design:** I especially enjoy document design, be it a CV or a <u>research poster</u>. I can usually find my way around Adobe InDesign and Illustrator.

Creative writing: When not writing computer programs or technical documentation, I tend to write a story or two. In 2016, my short story "Trapped in the Dollhouse" won 2<sup>nd</sup> prize at My English Book competition.

Philosophy, science, law: Tired of tech talk? Strike up a conversation about paradox of tolerance, statistical inference, or state sovereignty and I'll follow!