

# RUSU DINU-ȘTEFAN

## Senior FullStack Software Engineer

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## EDUCATION

Bachelor in Computer Engineering

University Politehnica of Bucharest

📅 Oct 2020 – Jun 2024

"Tudor Vianu" National College of Computer Science

📅 Sept 2016 – May 2020

## EXPERIENCE

Senior FullStack Software Engineer

Tazz by eMAG

📅 Aug 2021 – present

📍 Bucharest, Romania

- **Audit system**, so that order history could be and verified.
- **Architecture** for a **custom access control system**, in order to prevent unauthorized access to the database, and **managed permissions elevation** for users. **Coordinated** 2 junior developers that built this project, lead and helped them with various tips and tricks.
- Developed KPIs and **custom system alerts** that prevented **loss of data** and contributed to the **overall improvement of the system** by providing scheduled reports and alerts on Teams and email. This is **highly customizable**, as a new alert could be added to the system by just providing a new JSON config.

Trainer

Deutsche Bank Cloud School 2022 & 2023

📅 Mar – Sept 2022 & Aug – Sept 2023

- Taught the basics of Git, Java and Spring Boot, Angular and React. **Showcased** both basic and **advanced concepts** of programming, OOP and REST APIs, such as CRUD, authentication, authorization, JPA, JWT, and so on.

## ACHIEVEMENTS

- Placed 1st place at the Scientific Session - UPB 2022
- Placed 2nd place at the Scientific Session - UPB 2021
- Placed 2nd place at "Infoeducatie Nationala" 2020
- Placed 3rd place at "Infoeducatie Online" 2020
- Placed in top 15% at "Infoeducatie Nationala" 2019

## SKILLS

I can quickly pick-up new technologies and adapt to new environments, and I have already worked with:

Java, Dart, Typescript, Javascript, Scala, Python, Node.js  
Spring Boot, Flutter, Angular

Docker

Firebase, Firestore, MongoDB, Elasticsearch, AWS  
Mobile Development, Linux, Git, Microservices, Agile,  
Scrum, Hybrid Cloud, NGINX

## HONORS & AWARDS

- Rusu, D. S., Păvăloiu, G. N., "LIFELINE- Emergency Patient Data in a Distributed Manner," 2022 IEEE International Conference on Blockchain, Smart Healthcare and Emerging Technologies (SmartBlock4Health), Bucharest, Romania, 2022, pp. 1-5, doi: 10.1109/Smart-Block4Health56071.2022.10034522.
- Invited at PRO TV in 2022 (ILikeIT, a show where innovative apps are showcased)
- UPB Ambassador & Alumni
- Invited at PRO TV in 2019 (ILikeIT)

## PROJECTS

Divers Data and Drivers Data PRO

- Developed the **first virtual logbook for drivers**. Drivers Data is a serverless app that uses Firebase, Node.js, Java and was built for Android. The app can generate **reports for up to 3 years, in just 15 seconds**. More than 50 users daily, with a total of 1000 active users. Showcased at ILikeIT in 2019.

Custom Built CDN

- Built a custom CDN from scratch using Spring Boot. Optimized for **serving images in under 50ms** [tested in Romania, on devices with latency under 10ms]. Auto-image resizing and smart cache. **Computer vision** endpoint for recognising faces for auto generation of profile pictures.

Comentarii BAC Romana si eseuri audio

- An app with essays for a National Exam. More than **10000 total downloads** and **200 active users daily**.
- **Top 5 trending educational apps** on Google Play, summer of 2021.

Lifeline

- A **blockchain**-based application that shows vital data about the patients. The smart contract is stored on the **Ethereum blockchain** and assisted by the back-end written in Spring Boot with MongoDB and Flutter as front-end.+

PBI

- A website where students can find solutions to most of the problems shown by PbInfo. The website contains more than 1000 algorithms and solutions to the problems. Pages **load in under 50ms**, with **>1000 users daily**.

## VOLUNTEERING

- Judge & Mentor at the National & Online Olympiad "InfoEducatie" in 2021 & 2022
- Organizer, Mentor & Trainer at "Hardcore Entrepreneur" in 2021, 2022 & 2023

# EXPERIENCE & OTHER PROJECTS

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## Web & Mobile Software Engineer for Cosmin Savu & Paul Angelescu

📅 Dec 2019 – March 2021

- Developed in **under 1 week** their websites and cross-platform Mobile Apps in an Agile manner, using React, Flutter, Spring Boot, MongoDB, Firestore, Elasticsearch and a custom-built CDN for fast-size-optimized images, based on a Hybrid-cloud architecture.
- Optimized for high loads, **10% faster compared to other news/blog websites**.

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## Kubernetes Cluster using 3 Raspberry Pi4s

📅 February 2021

- Built and maintained a server used for Web Hosting (microservices & other backend-specific stuff).
- Set up a high performance Kubernetes Cluster using three Raspberry Pi4s, to host auto-scaling containers for the Drivers Data microservices.
- Set up: RHEL8 (Red Hat Enterprise Linux 8), NGINX (reverse proxy, cache, SSL, HTTP2, backup server redirects), Prometheus, Grafana, MongoDB, Elasticsearch, Kibana, Prometheus, Docker.
- Custom fan speed controls using IPMI.
- Auto server restart on power loss.
- Auto app-restart (for the hosted microservices / apps) on power loss / server crash.
- Auto SSL certificate renew.
- More than 10 concurrent hosted apps so far.
- 24/7 uptime.

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## Game Assembler & Emulator - "Fantasy Game Console"

📅 Hackathon "Infoeducatie" 2020 - 24h

- Developed with my teammate an Assembler and Emulator, written in C++, for packing and playing games on an emulated old console.
- 128 bytes of RAM, 4000 bytes of ROM, 3840 VRAM, a resolution of 40 x 192 pixels.
- 6 general registers and 4 special registers for the program counter, stack indicator, input data, and a utility of your choice.
- 6507 instructions per frame, 60 frames per second.
- All registers are one byte in size.

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## Choice Maker: Smart Decision Making

📅 May 2021

- Developed a cross-platform decision-making app, in Flutter, with Spring Boot backend.
- The app helps the user take the best decision possible using a decisional matrix algorithm and regression-based Artificial Intelligence.
- Available for Android, IOS, Windows and Web.

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## PVP Minesweeper

📅 March 2021 - April 2021

- Built a cross-platform mobile app, PVP flavor of the popular Minesweeper game.
- Various leaderboards and board skins, selectable in-app.
- Used Spring Boot (Websockets, MongoDB) and Flutter.

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## subiectebac.ro

📅 November 2020 – February 2021

- subiectebac.ro is a website and mobile app, developed in an Agile manner, using Spring Boot, Flutter and Firebase, and was built to help College Students have an easier and better learning experience for the National Exams. The website provides an archive with all the subjects and solutions for all the previous years.
- Minimalist and responsive UI for the best experience both on desktop and mobile with dark and light modes for a better user experience.