

# RUSU DINU-ȘTEFAN

## Software Engineer

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## EDUCATION

Bachelor in Computer Engineering

University Politehnica of Bucharest

📅 Oct 2020 – Jun 2024

Bachelor degree

"Tudor Vianu" National College of Computer Science

📅 Sept 2016 – May 2020

## EXPERIENCE

WEB & Mobile Software Developer

Cosmin Savu

📅 Dec 2019 – March 2021 📍 Bucharest, Romania

- Cosmin Savu is an important investigational journalist in Romania.
- Developed his website 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.
- Hybrid-Cloud architecture, connected cloud services with self-hosted ones.
- Optimized for high loads. 10% faster compared to other news/blog websites.

Android Software Developer

Rubrika

📅 Aug 2019 – Dec 2019 📍 Bucharest, Romania

- Developed the Rubrika Android app from scratch, using native code (Java) and Android Studio. The Android app is up to 30% faster than the website.

## ACHIEVEMENTS

- Placed 2nd place at "Infoeducatie Nationala" 2020
- Placed 3rd place at "Infoeducatie Online" 2020
- Placed in top 15% at "Infoeducatie Nationala" 2019
- Participated at "Performanțe Vianiste", XI th. Edition, 2019
- Participated at "DaVinci Contest, Reinvent the Future", IV th edition, 2018
- Participated at "Performanțe Vianiste", X th. Edition, 2018

## SKILLS

Java, Dart, C++, Javascript, C#, Node.js

React, Flutter, Spring Boot

Kubernetes, Docker

Firebase, Firestore, MongoDB, Elasticsearch, AWS

Mobile Development, Linux, Git, Microservices, Agile,

Scrum, Hybrid Cloud, NGINX, Grafana, Kibana, Prometheus

Illustrator, Lightroom, Premiere Pro

## HONORS & AWARDS

- Invited at PRO TV (ILikeIT, a show where innovative apps are showcased)

## 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. Those reports are saved in an EXCEL table. More than 50 users daily, with a total of 1000 active users.

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.

Website Paul Angelescu

- Developed Paul Angelescu's (romanian journalist) website using the same technology stack used for Cosmin Savu's website.

PBI

- Developed 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. Used Spring Boot and Thymeleaf. Pages load under 50ms. More than 1000 users daily.

RIP.WTF

- Developed a website to quickly shorten urls. The front end was made in React and the back end was written in Node.js. As a database I used a NOSQL database.

Whist Score Table

- Developed an app for the players of Whist. The app is a score-keeper and was written in Java, for Android. I also used Firebase Functions and Firestore. More than 200 players have used this app for their score-keeping.

Romana BAC - Descarcare Eseu

- An app with essays for a National Exam. More than 4000 total downloads and 100 active users daily.

## VOLUNTEERING

- Organizer & Mentor at "Hardcore Entrepreneur"
- Volunteered as Full Stack Software Developer at the VianuMUN website for the Vianu MUN conference in 2019.
- Volunteered as Assets Designer for "Concurs de Costume Traditionale Romanesti".

# EXPERIENCE & OTHER PROJECTS

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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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## Enterprise grade Web Host & Server Admin

📅 February 2021

- Built and maintained a server used for Web Hosting (microservices & other backend-specific stuff).
- Set up all the good stuff like: 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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## subiectebac.ro

📅 December 2020 – February 2021

- subiectebac.ro is a website developed in an Agile manner, using Spring Boot, 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.

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## CRUD Projects Website

📅 December 2020

- Developed an open-source, scalable, CRUD Projects Website using Python 3, Django, Docker, Gunicorn, SQLITE3.

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## Subiecte BAC Matematica & Other related flavors of the app

📅 November 2020 – December 2020

- Developed a mobile app for College Students that are preparing for the math National Exam. The flavors of the app are: An app with all the materials, and child-apps that contain only profile-specific materials, in order to optimize app size.
- The app was built using Flutter, Firebase.
- Dark and light modes for a better user experience.

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## Game Assembler - "Fantasy Game Console"

📅 Hackathon "Infoeducatie" 2020 - 24h

- Developed with my teammate an Assembler, written in C++, for packing games for the emulator of an old console.

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## Game Emulator - "Fantasy Game Console"

📅 Hackathon "Infoeducatie" 2020 - 24h

- Developed with my teammate an Emulator, written in C++, for playing games packed by the emulator.
- The hackathon request for the Emulator was: "RAM: 128 bytes. ROM: 4000 bytes. Video RAM: 3840 bytes. Resolution: 40 x 192 pixels. 6 general registers. 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. Only integer operations are allowed."

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## Kubernetes Cluster using 3 Raspberry Pi4s

📅 December 2020

- Set up a high performance Kubernetes Cluster using three Raspberry Pi4s, to host auto-scaling containers for the Drivers Data microservices.

## Dogs Quiz

📅 April 2020

- Developed a quiz mobile app with dog breeds with the goal to teach kids the different dog breeds.
  - The app has over 20 thousand dog images, 120 dog breeds, pulled from an open-source Breeds API.
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## Drivers Data for Windows

📅 April 2017 – December 2017

- Developed the Drivers Data app for windows, using C# and a custom built database.
- This was the first iteration of Drivers Data.