

# Adnan Elezović

## Software Engineer

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### Contact

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### Personal data

Born 02.10.1994.  
In Konjic, BA/BiH

### Key Skills

WebRTC  
Java 14  
Android Native  
iOS Native (Swift)  
C++11  
C99  
JS/TS  
Angular  
React  
Flutter  
React Native

### Education

2009–2013

Secondary School for Electrical Engineering in Sarajevo  
Degree obtained: IT technician

2013–2019

University in Sarajevo, Faculty of Electrical Engineering  
Degree obtained:

Bachelor's degree programme "Computing and Informatics"  
BsC Thesis: GameBoy Classic and Color Emulator

2019–2024 (expected)

University in Sarajevo, Faculty of Electrical Engineering  
Degree to be obtained: Master's degree programme "Computing and Informatics"

### Experience

December 2021–Present

Senior Software Engineer • Infobip d.o.o • Sarajevo

Heavily involved in the development of WebRTC integrations and development tools, as part of the CPaaS (Communication-Platform-as-a-service) requirement area. Development includes backend services, development of SDKs for various platforms<sup>1</sup>, and demo applications showcasing all features available to clients. Ultimately, doing as much as possible to enable developers to integrate WebRTC features in their existing solutions with minimal time investment. Since the product relies on existing open source solutions (such as the WebRTC project itself, and also [Janus Gateway](#)), I have solid understanding of their corresponding codebases due to having to apply modifications and bug fixes, some of which have been submitted and accepted as open source contributions (Janus), while others have been kept as private patches (Google WebRTC). Other responsibilities include communication with clients, integration support, internship mentoring.

<sup>1</sup> JS SDK ([docs](#), [npm](#)), Android SDK ([docs](#), [maven](#)), iOS SDK ([docs](#), [podspec](#)). Flutter and React Native SDKs are currently unlisted and not publicly available.

Java 14  
Microservices  
Vert.X  
Spring MVC  
Spring Reactor  
Swagger  
Containers (Docker)  
Kubernetes  
Reactive programming  
Oracle Database  
Elastic Search  
Kibana  
Log4J  
REST  
RabbitMQ  
ActiveMQ  
WSO2 API GW and IdP  
Codegen (using Mustache)  
Apache jMeter  
RxJava2  
Maven  
Git

## Key Skills

Teaching  
Public speaking

## Key Skills

Java 11  
Microservices  
Vert.X  
GraphQL  
Angular  
PostgreSQL  
JDBC  
RxJava2  
JetBrains TeamCity  
Android SDK  
Android NDK  
C++11

*July 2019–December 2021 (2 years, 6 months)*

Senior Software Engineer • ITMR d.o.o • Sarajevo

Working on highly scalable backend systems powering banking and “lifestyle banking” services for over 500.000 users in Germany. As backend lead, my responsibilities included, among others, development, 3<sup>rd</sup> party integrations, client and 3<sup>rd</sup> party communications, task specification, and code review. Actively maintaining over 50 microservices, from the initial development to deploying and running it inside a Kubernetes cluster.

Aside from development, my responsibilities often include segments which would otherwise be classified as DevOps/Sysadmin, such as: automated builds and deployments (build scripts and Jenkins pipelines, Kubernetes resource configuration), SSL certificates managing, stack monitoring, load analysis, heap dump export & analysis, automated uptime monitoring.

*October 2018–February 2019 (5 months)*

Demonstrator • Faculty of Electrical Engineering • Sarajevo

Demonstrator on the faculty course “Razvoj programskih rješenja” (*Development of programming solutions*). The course covered application development in Java and general development concepts and design patterns.

*May 2018–August 2019 (1 year, 4 months)*

Software Engineer • Monri Payments • Sarajevo

Full stack development of enterprise systems integrated in public transport and banking. Responsible for the complete development of features from the client communication, backend development (incl. database changes), up to the final frontend changes visible to the end-user. Projects also included embedded development using C++ and Yocto Linux.

## Key Skills

Native Android  
PHP  
PHP Doctrine  
GraphQL  
Angular  
PostgreSQL  
MySQL  
C++11  
RTSP

## Activities and Interests

Hobby Programming  
Game Development  
Video Games  
“Under the hood”  
understanding of computer  
architectures

*December 2014–May 2018 (3 years, 6 months)*

Software Developer • American University in Bosnia and Herzegovina • Sarajevo

Full stack (mostly LAMP) software developer and maintainer for various inhouse applications which include mobile apps (android native), front end web applications, and backend systems, including database design.

## Notable side projects

### mipsy

Since my personal passion is understanding things as close to the metal as possible, as part of one university course I have developed a simulator for the MIPS architecture. The main objective was to show and demonstrate how CPU instructions are realized on the hardware level. The project is publicly available on my GitHub profile ([link](#)).

### RTSP2VCAM

A Windows DirectShow filter to forward a configured RTSP stream to video output. The application consists of several windows libraries (DLL files). When registered, applications that use local cameras (e.g. Skype or flash) see the custom virtual camera listed, and when loaded initializes the connection to the RTSP stream. The RTSP video gets redirected to the camera video output. Multiple sessions share the same frame data through memory files by writing frame data into shared RAM space (thus not needing to connect multiple times or render frames individually).

The project is not yet made public, as it requires to be properly documented and reviewed for third party contributions in order to be credited accordingly. After that, it is planned to be open source, hopefully under GNU GPL. In any case, I would happily showcase this locally during an interview or casual coffee break, if there is any interest to do so.

Last change: 27. 10. 2023.

The latest version can always be obtained on my website/github page (see first page)

### StudyBoy

A fully fledged GameBoy Classic and Color emulator. This project served as my BSc thesis and helped me close the circle of understanding everything from high level languages, their compilation, up until the execution of a single instruction by the CPU. The project is publicly available on my GitHub profile ([Link](#)).

### NOSferatu16

Another simulator for the CPU architecture "SveU16", a (rather simple) CPU architecture used throughout the course "Napredni Operativni Sistemi" (*Advanced Operating Systems*) in the masters programme in the University of Sarajevo. Unlike *mipsy*, it focuses on the video output of the architecture, visualizing the screen and memory content during runtime, in real time. The project is publicly available on my GitHub profile ([Link](#)).

## Misc. skills

These are some skills that I believe are worth mentioning but weren't covered in the past sections. These are mostly acquired through smaller side projects (freelance or hobby) that I have since removed from my CV to avoid clutter. They are listed in no particular order.

- Intermediate knowledge of C and C++ (C++11)
- Node for backend (preferably written in TypeScript)
- C# (.NET and Mono)
- Xamarin Cross-Platform Mobile Development
- Unity 3D
- Unreal Engine 4
- PICBasic (PIC16F877A microchip programming)

## Languages

	Understanding		Speaking		Writing
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
German	C1	C1	B2	B2	C1

**Note:** The above values were filled in by personal judgement. No certification has been obtained yet. Although please keep in mind that I have intensively worked with foreign companies with which I communicated daily through development in both German and English, spoken and written.