Eduard Adrian Lupu

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EDUCATION

Babes-Bolyai University, B.Sc. Computer Science

Babes-Bolyai University, M.Sc. Software Engineering (expected)

Cluj-Napoca, Romania, Sep 2021 - Jun 2024

Cluj-Napoca, Romania, Sep 2024 - Jun 2026

Work Experience

Kingfisher

Backend Software Engineer

Cluj-Napoca, Romania December 2024 - present

- Working on 10+ microservices supporting B&Q, Castorama Poland, and Castorama France Marketplaces using Kotlin, Spring Boot, PostgreSQL, DynamoDB, Apache Kafka, and Docker.
- Improving and supporting core Marketplace features for third-party sellers, including product listings, offers, payments, promotions, and media, while ensuring stability, efficiency, and a smooth seller/buyer experience.

BitStone

Cluj-Napoca, Romania July 2023 - December 2024

Junior Full-Stack Software Engineer

- Developed a data aggregation and scouting platform for Universal Music, tracking emerging artists and analyzing data from TikTok, Spotify, Apple Music, Shazam, and Instagram. Tech stack included Node.js, Express, TypeScript, Sequelize, MySQL, Next.js, JavaScript, and AWS (EC2, Lambda, SQS, S3, Aurora).
- Built features that process and optimize large datasets, aggregating and correlating data to provide insights on artist growth, song performance, demographics, social media presence, and full music catalogues. Developed data visualization tools and automated reports, enabling Universal Music to identify trends, discover emerging talent, and make data-driven signing decisions.

Bitdefender

Cluj-Napoca, Romania

Junior Software Engineer

Feb 2022 - Jun 2022

- Utilized C, C++ and Win32 API to design and implement diverse tasks, such as detecting malicious files and automating the removal of infected files. Developed efficient functionalities through the utilization of processes, threads and synchronization mechanisms.
- Conducted simulations of various cyberattacks and exploits, including buffer overflow vulnerabilities, DLL hijacking and return-oriented programming techniques. Gained expertise in devising robust preventive measures to safeguard against these threats.

SKILLS

- Relevant courses: OOP, Data Structures and Algorithms, Networks, Databases, Operating Systems, Graph Algorithms, Software Engineering, Mobile Programming, AI, Computer Architecture, Design Patterns, Cloud Applications.
- Languages: JavaScript, TypeScript, Java, Kotlin, C/C++, Python, PHP, HTML5, CSS3.
- Databases: MySQL, PostgreSQL, SQL Server, Redis, DynamoDB, MongoDB
- Frameworks: React, Redux, Next.js, Express, Sequelize, Spring Boot, JPA, Qt, Win32 API, Apache Kafka, Flutter
- Tools: AWS, Datadog, Dynatrace, Docker, Git, Postman, Maven, Gradle, Burp, Jira, GitHub Actions, GitLab Pipelines
- Software Engineering Concepts: Microservices Architecture, Event-Driven Architecture, Containerization, Serverless

PROJECTS

World's Top Artists

• Built a fully client-side web application that tracks and visualizes the world's top artists using aggregated data from Spotify and Apple Music, featuring a 3D relationship graph, world map, and historical "former 500" tracking. The project runs entirely on static JSON, with automated daily data collection powered by Python and GitHub Actions.

Notes November 2024

Implemented a Notes app inspired by iOS Notes, replicating its functionality for both native, using Kotlin and Android Studio and cross-platform, using Flutter and Dart. The app supports offline usage, notes organization, search, and editing, with data initially stored in memory and later integrated into a server, created with Java and Spring Boot.

Studio Pill August 2024 - on going

• Designed a website for a friend's architecture studio in **Next.js**, **TypeScript**, and **TailwindCSS**, showcasing a responsive design, prioritizing accessibility, SEO and optimizing performance. Available at **studiopill.com**, hosted on GitHub Pages.

Beat With It - B.Sc. Thesis

December 2023 - June 2024

• Developed "Beat With It", a full-stack music discovery and recommendation platform integrating features from Spotify, Shazam, and TikTok to enhance music exploration. The project focuses on song identification, personalized insights, and interactive discovery. Due to the proprietary rights policy of my faculty, the code is not publicly available. However, I can demonstrate it upon request. The thesis is available here.

Shop front-end and Shop back-end

August 2023

• Created a full-stack online shop application using **React**, **JavaScript**, **Redux**, **RTK Query**, **Node.js**, **TypeScript**, **Mongoose** and **MongoDB**. The project offers a complete shopping experience with various features.

User management

September 2023

• Developed a user management tool using **Node.js**, **TypeScript**, **Express** and **Sequelize**. The project emphasizes industry-standard security practices, using **JWT** tokens and **bcrypt**, showcasing a reliable solution for managing users.

Tourism April 2023

• Developed a web app using Java, Spring Boot, Spring Boot MVC, JPA, Hibernate, MySQL, React, TypeScript, Material-UI, JUnit and Mockito. The app oversees relationships among countries, cities, languages, tourists and visits.

Commercial Airplanes Crashes

August 2022

• Developed a **Python** page scraper using **BeautifulSoup** and **Requests** to extract commercial airplane accidents data from Wikipedia. The analyzed data, such as accidents by day and seasonal accident trends, was used in academic research.