

# Alexandru Olteanu

## PROFILE

▪ Detail-oriented Software Engineer with a strong focus on Java and Spring Boot, and practical experience in C++, React, SQL, Docker, etc. Adept at designing scalable architectures, optimizing performance, and delivering reliable software solutions aligned with business goals.

## WORK EXPERIENCE

**Intermediate Software Engineer**  
*Orange Services*

Oct. 2024 – Current  
Bucharest

- Developed and maintained microservices and Java modules, improving system scalability and performance
- Created and executed automated tests using SoapUI and Cucumber to validate TR069 protocol message flows
- Led the team in migrating a legacy application from Google Web Toolkit (GWT) to React, significantly enhancing front-end responsiveness and maintainability
- Designed and implemented a standalone microservice acting as a message redirector during application downtime, ensuring service continuity
- Enhanced knowledge in Spring Boot, REST APIs, and modern front-end frameworks, contributing to overall code quality improvements

**Junior Software Engineer**  
*Deutsche Bank Global Technology*

July. 2022 – Oct.2024  
Bucharest

- Developed and migrated new code features in Java for microservices in relations with SQL database, Tibco server and TeamCity
- Developed error handling mechanisms from scratch and successfully integrated them with external services
- Refactored extensive functionalities and improved code quality by 18.5 %
- Wrote unit and integration tests to evaluate high code coverage
- Enhanced experience in working with Spring Boot, Maven and OpenShift

**Freelancer**  
*Fiverr, Upwork, Freelancer*

Mar. 2020 – Oct.2022  
Bucharest

- Improved my communication and expertise through working on different freelancing websites. My area of activity was mainly into marketing research, WordPress websites, multiple C++ and Java activities and designing in Adobe Illustrator and Photoshop

## PERSONAL PROJECTS

### SwapIt – University Thesis Project

- Developed a full-stack, microservices-based application promoting a circular economy by enabling secure object swapping between users. Built with React.js (frontend), Spring Boot/Java (backend), and PostgreSQL, the application features:
    - API Gateway for security, JWT/OAuth2 authentication, and Config Server for centralized configuration
    - Firebase integration for product/user images, second-level database caching, and Lucene-powered search for improved query handling
    - Custom error handling, scheduled operations to clean temporary data, and pagination via Spring Boot Pageable
- The solution manages 60,000+ products with fast response times (~114 ms).

### Nevsquare

- Founded a Marketing Agency & Tech Startup. The website was created with React.js, Bootstrap, and Typescript The design was made both for PC and tablet/mobile responsive with interactive animations and Tidio Chat Bot integrated. Practiced my front-end skills and carefully planned future market releases and backend integration. Planning on adding Log In / Sign Up and Payment Option.

### Server-Client TCP/UDP Connection

- Implemented a connection between multiple clients through a Server using UDP and TCP protocols. First type of clients simulates different types of news channels where the other type of clients can subscribe and receive their messages. The flow was created in C++ using sockets, listening for information of the server on different ports and multiple data structures.

### Movies, Actors & Users Database Management

- Organized and implemented an extensive database for movies, actors and users using Java OOP principles with over 1000+ lines of code. This project represents a possible backend integration of popular stream websites like Netflix, HBO GO, Twitch, etc. In this project actions like filtering movies on categories, adding users, actors, movies, sort them based on different filters, etc.

### Router Simulator

- This project was made in C and simulates the functionality of a router and how it redirects the packets received from one host to another. Communication protocols that were used are ARP and ICMP, ARP having the role to discover new interfaces and their MAC address (ARP request) and send back information to the eminent (ARP reply). and ICMP to display the progress of

packages that reach or not the required destination. Current project aims to develop C programming skills and how packages transmission works in a real and day to day environment.

## EDUCATION

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<b>National University of Science and Technology Politehnica Bucharest</b>	<b>Oct. 2024 – Current</b>
<i>Automation and Computer Science</i>	<b>Master of Computer Science</b>
<i>Master of Science in Digital Governance and Innovation</i>	

- Attending advanced studies in e-Government, focusing on cloud computing, adaptive and collaborative systems, information security, and project management. I am currently developing skills in decision-making processes, distributed systems, and consultancy for information services. Actively involved in comprehensive research projects and hands-on applications, gaining practical experience and in-depth knowledge throughout the program.

<b>National University of Science and Technology Politehnica Bucharest</b>	<b>Oct. 2020 – July. 2024</b>
<i>Automation and Computer Science</i>	<b>Bachelor of Computer Science</b>
<i>Computers and Technology Information</i>	

- Pursued programming and engineering classes, developing towards skills in Java, C, C++, Assembly, Python, MATLAB, LTSpice, Git and practicing multiple computer science concepts (Object Oriented Programming, Algorithms Analysis, Communication Protocols, Parallel and Distributive Algorithms, SQL, Multithreading, Game Development Concepts in OpenGL, etc)

## ACOMPLISHMENTS & AWARDS

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- Qualified for nationals and got in the top 15% in the team format of ACM-ICPC 2023
- Qualified for nationals in informatics Olympiad, getting second place in the previous round.
- I got great results in multiple programming competitions organized on Codeforces, Hackerrank and Codechef, having Expert rank on Codeforces and 5 stars rated coder on Codechef
- I got in top 10% in Facebook Hacker Cup 2023 and top 4% in Codechef SnackDown 2023
- Got into the Finals of Hack IT All competition organized by University Politehnica of Bucharest
- Mentored high school students in mathematics and computer science, with several achieving top results in university admission exams