

Marcel-Dumitru Ilcea

Senior Software Engineer

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Summary

Senior Software Engineer with over 9 years in **full-stack development, cloud, and DevOps**. Skilled in **React.js, Node.js, PostgreSQL, REST APIs, AWS (Lambda, ECS, RDS), Terraform, Docker, CI/CD pipelines (Jenkins, GitHub Actions, CodePipeline)**. Strong background in **backend optimization, observability, payment APIs, fraud detection, and HIPAA compliance**, delivering secure, scalable, and high-performance solutions with **Agile/Scrum practices**.

Skills

Languages & Frameworks: JavaScript (ES6+), TypeScript, Node.js (Express, NestJS), PHP (OOP, Laravel), Java (Spring Boot), C#, HTML5, SCSS, SQL

Frontend: React.js, Next.js, Vue.js, Angular, Redux, Tailwind CSS, Bootstrap

Backend & APIs: REST APIs, GraphQL (Apollo), WebSockets, OAuth2, JWT, Prisma, TypeORM, Strapi

Databases & Caching: PostgreSQL, MySQL, MongoDB, Redis, SQL Server

DevOps & Cloud: AWS (Lambda, ECS, EC2, S3, RDS), Azure (Functions, B2C, App Services), Docker, Kubernetes, Terraform, GitHub Actions, GitLab CI/CD, AWS CodePipeline

Architecture & Practices: Microservices Architecture, High-Availability Systems, CI/CD Pipelines, Agile & Scrum, Clean Code Principles, Performance Optimization, API Design & Integration, Security Best Practices

Experience

Crossover

Madrid, Spain - Remote

Senior Software Engineer

11/2021 - 07/2025

- Led the architecture migration from a **monolithic system** to **AWS-based microservices**, enabling independent service scaling and reducing deployment cycles by **78%**.
- Designed and maintained **high-availability cloud infrastructure** using **Terraform, AWS Lambda, ECS, and RDS**, improving system uptime and scalability.
- Built and optimized **CI/CD pipelines** using **GitHub Actions, AWS CodePipeline, and Docker**, reducing rollback times by **75%** and lowering release failure rates by **40%**.
- Improved backend performance in **Node.js** and **PostgreSQL**, reducing average response times from **750ms → 280ms**, cutting infrastructure costs, and increasing throughput.
- Developed secure, user-centered features with **React, TypeScript, and REST APIs**, enhancing product usability and customer satisfaction.
- Mentored junior and mid-level engineers, performed **code reviews**, enforced **clean code principles**, and supported knowledge sharing across teams.
- Integrated **observability tools** including **CloudWatch** and **Sentry** to monitor microservice health and reduce mean-time-to-detect (MTTD) by **35%**.
- Drove automation of **infrastructure provisioning and deployment workflows**, supporting **blue/green** and **canary deployments** across multiple environments.

Cognizant

Bucharest, Romania

Senior Full-Stack Developer

02/2018 - 10/2021

- Built and deployed **React.js** incentive tools, enhancing UX and reducing customer support inquiries by **25%**.
- Redesigned backend **REST APIs** for asynchronous processing using **Node.js** and **Express**, cutting claim processing time from **12 hours → under 3 hours**.
- Optimized **Redux state management** and implemented performance tuning, improving dashboard responsiveness by **30%**.
- Integrated **fraud detection systems** and **payment APIs** (Stripe, PayPal), reducing reconciliation errors by **60%** and strengthening transaction security.
- Developed **CI/CD pipelines** with Jenkins and GitHub Actions, accelerating deployments and reducing rollback times.
- Implemented **unit and integration testing** with Jest and Mocha, increasing test coverage and reducing production bugs.
- Collaborated with cross-functional teams (QA, DevOps, Product) to deliver scalable, **cloud-ready applications** on AWS.
- Applied **clean code practices, code reviews, and Agile methodologies (Scrum/Kanban)**, boosting team productivity and collaboration.

Experience

Ropardo

Sibiu, Romania

Software Developer

07/2016 - 02/2018

- Enhanced **shipment tracking systems** by optimizing backend logic and data validation, improving accuracy and reducing manual errors by **30%**.
- Integrated **healthcare claim processing APIs**, ensuring HIPAA compliance, improving system interoperability, and cutting validation errors by **20%**.
- Boosted backend performance by reducing average response times from **800ms → 350ms** through **SQL query optimization, indexing strategies, and database tuning**.
- Developed and maintained **RESTful APIs** for logistics and healthcare systems, enabling secure and reliable data exchange across platforms.
- Collaborated in **Agile/Scrum sprints**, performing **code reviews** and implementing **clean code practices**, which improved deployment quality and reduced release cycle times.
- Implemented **unit testing** and regression testing, improving system stability and reducing production defects.
- Worked with **cross-functional teams** (QA, DevOps, Product) to deliver scalable, high-availability solutions in logistics and healthcare domains.
- Assisted in early adoption of **CI/CD pipelines** with Jenkins, improving deployment automation and reducing rollback times.

Education

Lucian Blaga University of Sibiu - Sibiu, Romania

2012 - 2016

Bachelor of Science in Computer Engineering | GPA: **9** / 10