



# Tudor Rus

Software Engineer

- Romania
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## About Me

Experienced software engineer passionate about problem-solving and committed to driving impactful outcomes through technical expertise and continuous learning.

## Skills

### Frontend

ReactJS, React Native, HTML/CSS, Javascript, TypeScript, Thymeleaf

### Backend Development

Java, Spring, SQL, C/C++, Python

### DevOps

Docker, Jenkins, Heroku, Bitrise, Git, AWS, GitHub Actions

### Database Management

PostgreSQL, MySQL, Elastic Search, Liquibase, Flyway

## Personal Projects

### Distributed Home Care Medical System

*Key features:* medication plan management, automated pill-box notification system, patient sensor monitoring capabilities.

*Java, Spring, Docker, MySQL, React, Typescript, RabbitMQ, gRPC, Heroku*

### Banking Application

*Key features:* account and deposit management, secure transactions and transfers, account alerts.

*Java Spring Boot, Hibernate, SQL, Angular, HTML, CSS, JS*

### Airport Management System

*Key features:* flight scheduling, passenger check-in and boarding service and monitoring, airport resource management.

*Spring Boot, Java, ReactJS, Typescript*

### Berkeley Pacman AI Project

Project aimed to leverage an array of foundational AI concepts, such as informed state-space search, probabilistic inference, and reinforcement learning.

*Python, AI, Reinforcement Learning*

### 3D Unity game

Unity-based 3D game, showcasing skills in modeling, animation, shaders, physics, and peer-to-peer networking.

*Unity, C#, Blender, Shaders*

### WhatsApp-YouTube Automation

Content creation tool utilizing existing APIs to detect and upload WhatsApp-shared video files to a linked YouTube channel as shorts at regular intervals.

*WhatsApp API, YouTube API, Python, AWS*

## Languages

### English

C2

### Romanian

Native

### French

Basic

## Education

### Technical University of Cluj-Napoca

Computer Science

September 2017 - July 2021

Bachelor of Computer Science

## Experience

### Codemart

Software Engineer

3 Years

- Implemented a comprehensive distributed Medical Platform, integrating two management web apps for hospitals and doctors, alongside a patient mobile app.
- Developed front-end and back-end features such as an automatic pharmacy ordering system, code refactoring for full dependencies update, and database migrations.
- Introduced a robust white labeling feature through the creation of a generalized theme customization system for the mobile app.
- Created a React Native library for secure custom file sharing directly with a designated app.
- Designed and implemented a CI/CD pipeline utilizing Jenkins and Docker for the mobile app, containing integration and unit tests, Fastlane build and deployment steps for iOS and Android.
- Technologies: **Java, Spring, Hibernate, SQL, ReactJS, TypeScript, React Native, Detox, Docker, Jenkins, Flyway, Fastlane.**
- Assumed the roles of **Full-Stack Developer, DevOps and Test/QA Engineer.**

### Exigea

Software Engineer

1 Year

- Worked on the design and development of the backend architecture for a prominent German mobile shopping app.
- Implemented key features including: dynamic feed, automated emailing system, discount computing and management system, and bulk insertion of crawled data to enhance user experience.
- Facilitated administration tasks by creating an intuitive admin panel for seamless management of orders, users, discount campaigns, products, and shops.
- Integrated Elastic Search and established a real-time synchronization system between the Elastic instance and the database, drastically reducing complex search requests from 15 s/query to less than 0.5 s/query.
- Optimized endpoint response time by refining business logic and database queries throughout the backend, resulting in improved system performance.
- Provided strategic consulting services, offering innovative solutions that effectively balanced client needs and constraints, considering both functional and non-functional requirements.
- Technologies: **Java, Spring, Hibernate, SQL, Liquibase, Thymeleaf, Elastic Search.**

### Rudymental

Project Manager & Developer

3 Years

### Automated Traffic Analyzing System

- Served as both Product Manager and Team Lead, overseeing the successful delivery of a cutting-edge traffic survey automation tool leveraging state-of-the-art machine learning models.
- Conducted thorough business analysis to discern client requirements and recommended solutions and enhancements to elevate user experience and functionality.
- Architected the system's infrastructure as a streamlined data processing pipeline, prioritizing performance, maintainability, and modularity. This design approach ensures scalability, allowing for seamless refinement or replacement of modules with more efficient counterparts as the product evolves.
- Technologies: **Python, TensorFlow, Anaconda, Tkinter, PyTorch.**

### CybrOps Cyber Security

- Led the development of the responsive frontend for a cybersecurity management web application, tasked with defining and monitoring engagements for client assets and components.
- Integrated critical security features, including integration with Keycloak for robust login and user management, as well as implementing safeguards to prevent SQL injection vulnerabilities.
- Architected and implemented a real-time chat functionality to facilitate direct communication with clients, enhancing collaboration and responsiveness.
- Designed and implemented robust reporting and statistics capabilities, enabling users to export aggregated data per customer for comprehensive analysis and insights.
- Developed role-based access control features tailored for admins, testers, and customers, ensuring granular access control for CRUD operations and safeguarding sensitive information.
- Technologies: **Python, React, HTML, CSS, TypeScript, Docker, Postgres.**

### Product Organizing System

- Designed and developed an innovative pallet product placement system for a leading Romanian food manufacturing and distribution firm.
- Successfully implemented the Minimum Viable Product (MVP) and orchestrated the team's workflow in alignment with Agile Methodology, ensuring efficient and iterative progress towards project goals.
- Employed Test-Driven Design principles to enhance system reliability, effectively addressing diverse input variations and complex rule policies, thereby ensuring robust performance under challenging conditions.
- Technologies: **Python, Tkinter.**

### CEZ Platform Redesign and Implementation

- Implemented a complete platform redesign for a natural gas and electrical energy distribution company, enhancing functionality and user experience.
- Developed and integrated new end-to-end features enabling dynamic management of offers, campaigns, and other essential entities within the application.
- Technologies: **Java, HTML, CSS, JavaScript, Liferay, Postgres.**

### Flutter Group

Software Engineer

1 Year

- Worked on the backend and DevOps development for a leading international betting platform, utilizing advanced AWS features and distributed systems to optimize performance, supporting hundreds of thousands of requests per minute.
- Implemented complex architectures to ensure platform scalability and reliability, contributing to its smooth operation and user experience.
- Developed a duplicate account and fraud detection system, employing various techniques to protect the integrity of the platform and mitigate risks associated with fraudulent activities.
- Technologies: **Kafka, AWS, GitHub Actions, Cloudformation, Cdk, Java, Spring Boot, Elastic Search, Docker, TypeScript, Liquibase.**