



David Varga

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ABOUT ME

Senior Full Stack Engineer with **5 years** of hands-on experience with a **various technologies and protocols**, actively performing in the software industry, architecting and building **top-notch**, clean and scalable web apps and distributed systems.

- **Prioritizing user experience**, harmonizing it with superior software system architecture to ensure end-to-end quality.
- Boast an in-depth acumen in **Domain-Driven Design**, underpinned by a robust application of **software engineering heuristics**:
 - **Design Patterns**: Harnessing tried-and-tested templates for solving recurring design problems.
 - **SOLID Principles**: Ensuring software design that's maintainable, scalable, and robust.
 - **Core Coding Tenets**: Upholding the industry's best practices, including **YAGNI**, **DRY**, **KISS**, and **ACID** to craft impeccable and **efficient code**
- **Engaging** in the meticulous design and execution of **top-tier, scalable software solutions** catering to diverse businesses and clientele across the global landscape.

WORK EXPERIENCE

Senior Full Stack Software Engineer and Solutions Architect

Bithat Solutions [09/2023 – Current]

City: Bucharest

Country: Romania

Technologies:

- HTML 4 | CSS 2 | JavaScript 5
- AJAX Communications | JS with DHTML
- jQuery
- Java 8 | Java Applets | Java Servlets | POJO
- SQL | Microsoft Server SQL (MSSQL)

Responsibilities:

- Lead developer in high-profile projects for the Romanian Government, focusing on digitalization and automation of governmental processes.
- Instrumental in the development and implementation of DOCUMENTA DMS, a comprehensive document management system.
- Developed specialized digital platforms for people with disabilities, enhancing accessibility and inclusivity in governmental services.
- Utilized OCR technology for digitizing and archiving significant volumes of government documents.
- Implemented e-Sign and e-Registry solutions to streamline governmental processes, ensuring secure and efficient online transactions.
- Played a key role in the integration of Business Process Management (BPM) and Robotic Process Automation (RPA) technologies, leading to increased efficiency and automation of routine tasks.
- Worked closely with a diverse clientele, including major sectors of the Romanian government and public administration, providing tailored software solutions.

Feats of Performance:

- Streamlined AJAX calls for faster server responses and reduced latency. Employed dynamic HTML to update content without full page reloads, improving interaction responsiveness.
- Optimized jQuery selectors and events to reduce DOM traversal and manipulation overhead, boosting frontend performance.
- Employed multi-threading and efficient memory management in Java to enhance server-side performance. Optimized servlets for quicker response times and leveraged POJOs for cleaner, more maintainable code.
- Implemented advanced SQL techniques such as indexing, query optimization, and efficient joins to enhance database performance. Utilized stored procedures and triggers to offload processing to the database, reducing server load.

Senior Full Stack Software Engineer

UpCo Technologies Ltd [02/2023 – 09/2023]

City: Dublin

Country: Romania

HoReCa Industry - We are developing a platform which serves its distributed system to multiple frontend applications.

Technologies

- Angular 12 | TypeScript | ngRx | RxJS
- JavaScript ES6+ | Cypress | Jasmine
- Node.js | Nest.js | TypeORM | Jest
- TypeORM | MySQL | Log4j
- REST | GraphQL | RabbitMQ | OpenAPI | Swagger
- Docker | Openshift | Prometheus | Grafana
- Percy | LoadRunner | Lighthouse | Istanbul
- Git | Jenkins

Responsibilities:

- Backend communications are primarily facilitated through **GraphQL**, with supplementary use of **REST**.
- Seamlessly integrated **Node microservices**, synchronizing their interactions using **RabbitMQ** to establish **de coupled and asynchronous exchanges**.
- Architected a resilient, high-performance database solution with **MySQL** and **TypeORM**, guaranteeing **ACID** compliance and streamlined query performance.
- Expertly deployed services on **Openshift**, harnessing its container orchestration for superior resource allocation, automated scaling, and robust fault tolerance.
- Employed **Prometheus** and **Grafana** for on-the-fly system monitoring, complemented by **Log4j** for logging, delivering detailed insights into application performance, resource metrics, and potential system bottlenecks.
- **Stream Processing and real-time analytics using Kafka.**
- Pentesting with **Metasploit**

Proposals:

- Migrating the project from using RESTful API's to a system that uses GraphQL for communication for finer grained data retrieval, reducing runtime errors, and also for its very powerful ability to self document.
- Using Facebook's DataLoader in order to be able to batch multiple requests into a single one and cache the results.

Full Stack Software Engineer

Publicis Sapient [04/2021 – 02/2023]

City: Bucharest

Country: Romania

Geo Information - Smart City Planning, Public Health, Disease Tracking, Disaster Management and Mitigation, R&D in Predictive Modeling of Crustacean populations in wetlands across Europe.

Technologies:

- Angular 13 | Typescript | ngRx | RxJS
- Java | Spring Boot | Hibernate | Thymeleaf | Mockito
- Elasticsearch | Kibana | Logstash
- Flyway | Liquibase | PostgreSQL | MySQL
- REST | FastAPI | Swagger
- Docker | Kubernetes | Microservices | Zabbix
- Git | Jenkins | Openshift
- Hadoop's HDFS | Apache Kafka | Geographical Sharding
- Monorepo with NX
- Jasmine | Karma | Playwright | Lighthouse | Istanbul

Responsibilities:

- Implementing Frontend to Backend Communication with **GraphQL** for managing dynamic structured data;
- Implementing real-time communication with **Web Sockets**;
- Building high-quality, responsive and reusable frontend components straight from **UI/UX mockups**, frontend services, developing **backend controllers, endpoints**, implementing data access control, serverside business logic, doing **database modelling & design**, **CRUD** operations;
- Feature branching, performing constructive code reviews for other engineers, helping improve readability and follow team guidelines, conventions & **best practices**

Full Stack Software Engineer

Publicis Sapient [09/2019 – 09/2021]

City: Bucharest

Country: Romania

Cloud Platform for General Management

Technologies:

- Angular 10 | TypeScript | NgRx | RxJS
- Java | Spring Boot | Hibernate | Thymeleaf | Mockito
- Node.js | Nest.js | Jest
- Elasticsearch | Kibana | Logstash
- Docker | Kubernetes | Microservices
- JUnit | Mockito | Spring Test | Selenium | Maven

Responsibilities:

- Database Design and Performance
- Deployed our services on **Openshift**, leveraging its container orchestration capabilities for optimal resource allocation, auto-scaling and fault tolerance.
- Working with backend's fully fledged **distributed architecture**, spanning over **20+ microservices**
- Successfully migrated microservices **from Docker containerized solution to Kubernetes orchestration**, resulting in enhanced horizontal auto-scalability, resource optimization and streamlined deployment processes.
- Refactoring and migrating from legacy Java server-side rendered app to modern **SPA Angular/Spring REST M VVM** architecture solution.
- Using Prometheus and **Grafana** for real-time system monitoring, along with **Log4j** for logging, offering **granular insights** into application health, **resource utilization**, and **potential bottlenecks**

EDUCATION AND TRAINING

Software Engineer

Aurel Vlaicu University [09/2021 – Current]

City: ARAD

Country: Romania

Field(s) of study: Information and Communication Technologies: *Database and network design and administration , Information and Communication Technologies (ICTs) not further defined*

Level in EQF: EQF level 7

Number of credits: 180

Computer science competences:

- Operating Systems (Linux)
- Networking
- Data science
- Software Security, Reverse Engineering
- Assembly Programming
- Fuzzy Logics, Expert Systems
- Software Validation & Testing
- Software Quality & Evolution
- Software Project Management
- Multimedia Systems

Maths competences:

- Calculus, Linear Algebra, Probability & Statistics, Geometry, Trigonometry
- Management & Marketing, Microeconomy

Hardware competences:

- Digital logic, Computers architecture, FPGAs (Verilog language);
- Digital mycrosystems design, Embedded systems programming in C (Arduino)
- System and Automation Theory (MATLAB, Simulink)
- Physics, Electrical Engineering, Electronics, Mechanical Engineering

TECHNICAL COMPETENCES AND QUALIFICATIONS

Full Stack Software Engineering

Frontend development & UI/UX design:

- Angular | TypeScript | RxJS | NgRx
- HTML5 | CSS3 + SASS | SEO | Accessibility
- Angular Material | Bootstrap 5 | Tailwind CSS | jQuery
- Figma | AdobeXD
- Karma + Jasmine | Jest | NgAria | Lighthouse

Backend development with Node:

- Node.js | Nest.js | Type ORM
- Mocha | Chai

Backend development with Java:

- JUnit | Mockito
- Spring Test | Selenium
- Gradle
- ERP with SAP | SAP S/4HANA | ECC

Communication and Protocols:

- RESTful | SOAP | gRPC | GraphQL | WebSockets
- RabbitMQ | **Apache Kafka**
- Postman | Swagger

DevOps, Infrastructure & related competences:

- Openshift | Microservices | AWS
- Docker | Kubernetes
- Prometheus | Grafana | Zabbix
- Jenkins | Azure Pipelines Git
- Ubuntu | Bash CLI | Shell Scripting

Database Design and Development:

- MySQL | PostgreSQL | MSSQL | PL/SQL
- Flyway | Liquibase | Type ORM
- MongoDB | Redis | Kibana | Log4j | ElasticSearch
- DB Performance | Query Optimization | Indexing | Partitioning
- Replication & Sharding | Caching | Batch Processing
- Capacity Planning | Monitoring & Alerting | Backup & Recovery

High Software Engineering Competences:

- TDD | BDD | DDD | CQRS
- Architectural and Design Patterns | SOLID | ACID | KISS | DRY | YAGNI
- Database Design | Database Sharding
- Multithreading | Event-Driven | Reactive | Functional Programming
- Micro Frontends Communication
- Microservices Communication | Sync & Async

Team management & related competences:

- Agile Scrum | Agile Kanban | Agile XP
 - Scaled SAFe
 - Jira | Confluence | GitLab
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