SERHII DUDAR
SENIOR JAVA SOFTWARE ENGINEER

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Ukraine, Vinnytsya

Summary

With over 10 years of experience as a software engineer, I specialize in creating diverse solutions ranging from server applications to SDKs and client apps. My expertise spans **OOP** principles, **HTTP**, **concurrency**, **microservices** architecture, **high-load** systems, **optimizations**, **algorithms**, **software design patterns**, and more. I am well-versed in **SOLID**, **GRASP**, **DRY**, **KISS**, **YAGNI**, **Clean Architecture**, and other best practices, which I rigorously adhere to in my work to ensure clean, extensible, flexible, fast, and robust code. My recent focus has been on **Java**, although I also have a strong background in **C#**, **JS/TS**, **Python**, and related technologies/frameworks. Additionally, I have experience in project leadership roles, ensuring successful project delivery and value generation for businesses across various iterations and project lifecycles.

Skills

- **Languages:** Java, C#, JavaScript, Sql, TypeScript, Python
- **Backend:** Spring Framework, Spring Cloud, Webflux, OAuth, GraphQL, DGS, Hibernate, Project Reactor, RxJava, JDBC, R2DBC, JOOQ, Apache Camel, JDBI, NIO, Microservices, High Load, sftp, Quartz, Node.js, Apollo, Express, Voult, Swagger, ASP.NET...
- **Frontend:** Angular, ReactJs, JavaFX
- **Databases:** PostgreSQL, MySql, MS SQL Server, MongoDb, SQLite, S3
- **Caching:** Redis, Hazelcast
- **Data:** Apache Avro, Protobuf, JSON, XML, SOAP
- **Message brokers:** Apache Kafka (Kafka Streams), RabbitMq, Axon Server, JMS
- **Testing:** Junit, Cucumber, Rest-Assured, AssertJ, Wiremock, Testcontainers, Jest, Powermock
- **Build:** Gradle, Maven
- **Version control:** Gitlab, GitHub,
- **Servers:** Netty, Tomcat, Jetty, JBoss, IIS
- **Profiling:** jmetter, jprofiler, jconsole, visualvm, jaeger
- **Cloud:** AWS, Goodle Cloud, Kubernetes, Helm
- **Libs:** Lombok, Mapstruct, StreamEx, Guava, Jackson, Apache Commons, org.immutables...
- **Tools:** VIM, IntelliJ IDEA, Eclipse, Rider, Visual Studio, insomnia, akhq, k9s...

Education

National Technical University - Ukraine, Vinnytsya   2007-2012
Specialist Degree, Computer Engineering

Languages

English: Upper-Intermediate (B2)
Ukrainian: Native

Experience

Digitally Inspired company
Senior Java Software Engineer   May 2021 – Present

Project: City Plumbing | Plumbing and Heating Merchants, Bathroom Stores: UK's largest builders' merchants, supplying tens of thousands of trade quality products that are available for contact free delivery or collection (main public site https://www.cityplumbing.co.uk/)

Responsibilities:
- Leading `Order Domain` projec;
- Developing new microservices, features, and functionalitie;
- Optimizing performance and conducting refactoring tasks.

Main achievements:
- Optimized numerous complex SQL queries to improve database performance;
- Led the development of critical microservices and integrations for the "Orders" domain on the platform. This included the creation of microservices, 3rd party integrations, sinks, consumers, and more. Successfully implemented an asynchronous flow using Kafka to synchronize orders from various sources, normalize configurations, and seamlessly integrate with the legacy slow system. Implemented comprehensive recovery flows and notifications;
- Designed and implemented a mechanism for order synchronization between two major systems, reducing the number of expensive calls by leveraging on-demand user requests and order notification mechanisms;
- Developed an order notification mechanism to track real-time changes in orders from the legacy slow system system, allowing clients to monitor order progress effectively.
- Engineered a concurrent TcpClientConnectionFactory to connect with PED terminals, laying the foundation for the platform's payment system;
- Enhanced the legacy slow system system proxy microservice to optimize connection management with the legacy slow system system, significantly reducing licensing costs and improving connection efficiency by using `kafka streams`;
- Created a custom lightweight indexed full-text serch solution based on PostgreSQL (tsvector, tsquery), enabling the implementation of complex and fast search engines across the platform without the need for expensive third-party search platforms like Elasticsearch or Algolia;
- Introduced the `Clean Architecture` principle to the project, collaborating with other leads to establish a unified service creation and refactoring architecture. This initiative significantly simplified support efforts, streamlined extension processes, and facilitated the integration of new client services into various domains.

TECHNOLIGIES: Java 11-21, Spring Framework, JEE, Project Reactor, RxJava, Netty, PostgreSQL, Elasticsearch, Redis, Kubernetes, Concurrency and Multithreading, Helm, AWS, Microservices, High Load, Apache Kafka, Apache Avro, Kafka Streams, Kafka Connect, S3, JDBC, R2DBC, Jdbi, jooq, sftp, Node.js, GraphQL, Apollo, Lombok,

Mapstruct, StreamEx, Guava, Jackson, Apache Commons, org.immutables, dgs, Supergraphs and federations, Gradle, Voult, Keycloack, Jaeger, Gitlab, k9s, akhq, cucumber, junit5, assertj...

Sweetcode Lab company
Senior Java Software Engineer
April 2019 – May 2021

Project 3: Natura ERP System, for one of the largest cannabis cultivation and manufacturing company based in California, specializing in providing high-quality cannabis products to licensed retailers and brands.

Responsibilities:
- Leading project technically;
- Developing new microservices, features, and functionalities;
- Building and maintaining system architecture;
- Optimizing performance and conducting refactoring tasks.

Main achievements:
- Developed core microservice infrastructure from scratch, addressing various challenges along the way;
- Introduced the Axon Framework, enabling strict Event Sourcing and CQRS models, which effectively solved numerous business issues;
- Integrated with the US government's METRC system to monitor and regulate company products in compliance with country laws, despite challenges with automation processes;
- Utilized Project Reactor and Netty as the primary server components, introducing parallelism for resource-intensive computations. This optimization led to nearly halving CPU and RAM usage while maintaining consistent API throughput, resulting in significant cost savings during platform scaling;
- Created a client-side JavaFX printer application deployed on factory machines, allowing workers to directly print QR codes and other documents from the ERP system;
- Implemented real-time tracking of product delivery to customers using customized Google Maps integration, providing control over the delivery process.

TECHNOLIGIES:
ServerSide: Java 11, Maven, Spring Boot 2, Rest, oauth2, JWT, Spring Cloud, Google Cloud, Kubernetes, RSockets, Project Reactor, Netty, Lombok, mapstruct, Quartz, MongoDB, Axon Framework 4, Axon Server, Kafka, Microservices, Event Sourcing and CQRS, Sagas, Apache Commons
ClientSide: ReactJS, JavaFx (printer app), React Native (driver app), Redux, Sagas, Typescript, rxjs, redux-observable, redux-thunk, lodash, moment, jwt...
Other: junit, rest-assured, wiremock, testcontainers, Netty, Jetty, powermock, swagger, git

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Project 2: Capna ERP - Distributed system for managing all flow of products from factories to retailers, clients, distributors etc

Responsibilities:
- Developing new microservices, features, and functionalities;
- Developing front end side functionality;
- Optimizing performance and conducting refactoring tasks.

Main achievements:
- Successfully migrated the existing system from PHP to Java Spring Boot-based microservices. This involved extending current functionalities and creating new features. The migration enabled the business to scale its operations twofold within a span of 8 months.

TECHNOLIGIES:
ServerSide: Java 8, Spring Boot 2, Spring Cloud (Eureka, Ribbon, Circuit Breaker), Quartz, MySql, RabbitMq, Graphql, Microservices
ClientSide: ReactJS, Redux, Sagas, Typescript, rxjs, lodash, moment...

Project 1: bank-connect - System of connecting to many bank systems (like american-express, cartachiara, carteaziende etc) from many user accounts (for one person) and collecting it to one processed system to analyses data etc.

Responsibilities:
- Developing new features, and functionalities.

TECHNOLIGIES: Java 8, Spring Boot, Apache Commons, Mapstruct, Junit ...

Sweetcode Lab company
Senior C#.NET Fullstack Software Engineer
May 2018 – April 2019

Project: elitconnect: system of properties market management system in USA

Responsibilities:
- Developing new microservices, features, and functionalities
- Optimizing performance and conducting refactoring tasks
- Developing front end side functionality

Main achievements:
- Introduced Event Sourcing and Command Query Responsibility Segregation (CQRS) to the project. This implementation enabled the system to gather crucial business metrics and retrieve them as needed. As a result, businesses gained the flexibility to scale the system effectively, leading to significant financial gains within less than half a year.

TECHNOLIGIES:
ServerSide: C# 7, (Net 4.7, Net Core, Mono), MySql, MongoDb, Rx.Net, Nancy, Concurrency, Event Sourcing, CQRS, AutoMapper, NLog, WebSockets, Immutales, NUnit, Moq, Integration Nancy.Testing...
ClientSide: Angular 6, Redux, Sagas, karma, jasmine typescript, rxjs...
Other: Gulp, WebPack, Git, npm

ONSEO company
Java Fullstack Software Engineer
November 2017 – October 2018

Project: Gamesys games - UK one of the greatest gaming platform

Responsibilities:
- Developing new microservices, features, and functionalities.

- Optimizing performance and conducting refactoring tasks.
- Developing front end side functionality
- Integrating and supporting third-party game providers on the platform.

Main achievements:
- Created a customized solution for collecting client statistics across various event types during game sessions. This implementation facilitated the integration of cheat detection filters and resulted in significant cost savings for the company.

TECHNOLIGIES: Java 8, Spring Framework 5, Apache Camel, Microservices, Apache Kafka, JMetter, JProfiler, Microservices, Docker, Kubernetes, Sonar, Lombok, Junit, Restassured, Wiremock...

WinInteractive company
C#.Net Fullstack Software Engineer
February 2017 – November 2017

Project: Bwin - One of the bigges sport betting platform.

Responsibilities:
- Developing new microservices, features, and functionalities.
- Developing front end side functionality
- Optimizing performance and conducting refactoring tasks.

Main achievements:
- Developed dynamic and configurable web forms on-the-fly using ASP.NET, WebSockets, AngularJS, and CRM technologies. These forms boasted extensive customizability, validations, views, and support for various input types and counts. This initiative resulted in substantial time and cost savings for multiple developer teams and the company as a whole.

TECHNOLIGIES: ServerSide: C# 7, WebApi 2.0, ASP.NET MVC 5, Vanilla 6, SiteCore, DynaCon, OWIN, Log4Net, PosApi client services to low lavel data... ClientSide: JavaScript, TypeScript, AngularJS, Angular 4, Vanilla 6... Other: Gulp, Grunt, WebPack, KarmaJS, KarmaTS, Jasmine, Moxii, NUnit, Protractor, Selenium, Git, Svn npm, yarn...

WaveAccess company
C#.Net/Java Fullstack Software Engineer
February 2013 – February 2017

General: As a software engineer, I participate in the development of numerous company solutions primarily using C#.NET, C++, Java, and JavaScript. These solutions serve various business purposes, including customer-facing websites and factory control applications, among others.

Project 11: Indasoft.TSDB - Distributed highly loaded system of storage and processing of large volumes of time based on miscoservices.

Responsibilities:
- Project leadership
- Contributing to system solution architecture, technology evaluations, and selection (with a focus on NoSQL databases and fast caching solutions)
- Refactoring and optimizing code for improved performance
- Developing new functionality and providing ongoing support
- Monitoring system performance and health

Main achievements:
- Engineered an API capable of processing thousands (ranging from 100 to 10,000) of requests within a fraction of a second, handling critical metrics such as temperature, pressure, and various other parameters. This real-time analysis, compression, and storage capability empowered the company and its factories to significantly boost production capacities, achieving up to 8 times the initial plans (originally targeted for 5 times). The achievement of such high throughput was primarily attributed to leveraging numerous concurrency features and runtime optimizations.
- Developed a client-side SDK leveraging Protobuf for efficient transmission of large data volumes to the API, implementing batching techniques for optimized performance.

TECHNOLIGIES: C#, Java 8, RabbitMq, .Net Framework 4.6, WebApi 2.0 Cluster, Protobuf, OWIN, Multithreading, EF 6, ActiveDirectory, Sql Server 2012, RedisDb, Apache Cassandra(NoSql), KairosDB, Windows Service, SignalR, OPC, Log4Net, Spring Framework, Protobuf, Sqlite, websockets, WIX, WPF

Project 10: NewClientIntake - System of registration and collection of clients' applications

TECHNOLIGIES: C#, ASP.NET MVC 5, WebApi, OWIN, EF 5, MS Sql Server, MAF, WIX | JavaScript, Angular, JQuery, Bootstrap, RequireJs

Project 9: Continue - Tracking System

TECHNOLIGIES: C#, ASP.NET MVC 5, EF 5, WebApi, OWIN, DevExpress, MS Sql Server | JavaScript(ES5), Angular, JQuery, Bootstrap, DevExpress libraries

Project 8: EventGame - WaveAccess the system for generating questions and answers on the company's products and events, used for various exhibitions and events.

TECHNOLIGIES: C#, ASP.NET MVC 5, WebApi, OWIN, EF 5, MS Sql Server | JavaScript(ES5), WebSokets, JQuery, Bootstrap, KnockoutJs, RequireJs, ExtJs

Project 7: ServiceGenerator - System for auto generating WCF services and automatic publishing based on customer configuration.

TECHNOLIGIES: C#, ASP.NET Web Form, Windows Services, WCF, WPF, MS Sql Server, Microsoft Dynamic CRM | JavaScript(ES5), JQuery

Project 6: LOblastCRM - Integrated system of work with applications and various documents from customers through Microsoft Dynamic CRM

TECHNOLIGIES: C#, ASP.NET Web Form, MS Sql Server, Microsoft Dynamic CRM | JavaScript, JQuery

Project 5: WA - company site (http://www.wave-access.com/)

TECHNOLIGIES: C#, ASP.NET MVC 4, Umbraco, XSLT, MS Sql Server, WebApi | JavaScript, JQuery, KnockoutJs

Project 4: MyWorkSearch - One of the biggest resource of job search, training, etc in UK.

TECHNOLIGIES: C#, ASP.NET Web Form, ASP.NET MVC, Sql Server, ReportServer | JavaScript, JQuery, KendoUI

Project 3: AttUnix - Customer site to control company documents livecycle

TECHNOLIGIES: C#, ASP.NET MVC 4, Umbraco, XSLT, MS Sql Server | JavaScript, JQuery

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Project 2: WAShot - Resource CRM of the company's products and their installation online from site on CRM clients.

TECHNOLIGIES: C#, ASP.NET Web Form, Umbraco, WPF, MS Sql Server, MS Dynamic CRM | JavaScript, JQuery

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Project 1: TrackControl - company internal working hours tracking system

TECHNOLIGIES: C#, ASP.NET MVC 3, NHibernate, MS Sql Server, Redmine Api, ActiveDirectory | JavaScript, JQuery