

Nemanja Vrljanović

Senior Full-Stack Engineer

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PROFESSIONAL SUMMARY

Senior Full-Stack Engineer with almost 6 years of experience building production backend and web applications using .NET, React, and Azure. Strong in debugging complex production issues, identifying root causes, and translating business requirements into maintainable technical solutions. Experienced with distributed systems, real-time communication, system integrations, and AI-assisted engineering workflows using GitHub Copilot, Cursor, Claude Code, and custom MCP tooling.

TECHNICAL SKILLS

Backend: C#, .NET / ASP.NET Core, REST APIs, Microservices, Entity Framework Core

Frontend: React, Next.js, TypeScript

Data: Microsoft SQL Server, Redis

Cloud & Delivery: Microsoft Azure, Azure DevOps, GitLab CI/CD, Docker

Architecture & Integration: WebSockets, real-time communication, system integrations

AI-Assisted Engineering: GitHub Copilot, Cursor, Claude Code, Model Context Protocol (MCP)

PROFESSIONAL EXPERIENCE

Klika / Odinteq

Senior Full-Stack Engineer | 07/2025 - Present | Full-Stack Engineer | 06/2022 - 06/2025 | Banja Luka, Bosnia and Herzegovina
Promoted to Senior Full-Stack Engineer based on consistent technical delivery, ownership of complex functionality and production troubleshooting, client collaboration, and support of other engineers.

SkiData - Senior Full-Stack Engineer | 02/2026 - Present

Large-scale parking and ski resort management platform used across multiple facilities and ski centers.

- Develop and maintain .NET backend services, APIs, business logic, and WebSocket-based real-time communication while supporting Angular and AngularJS functionality.
- Investigate defects spanning backend, frontend, and real-time communication layers, identify root causes, and implement fixes designed to prevent recurrence.
- Contribute to team decisions on practical AI-agent adoption, including agent selection, supported use cases, and integration into development and testing workflows.
- Designed and implemented a proof-of-concept TestBench MCP used by the team to retrieve test cases; contributed to a Jira, TestRail, and Playwright agent workflow that gathers ticket-related test context, executes browser tests, and supports creation of missing TestRail cases during migration.

Technologies & Tools: .NET, C#, WebSockets, Angular, AngularJS, MSSQL, GitLab CI/CD, MCP, TestBench, TestRail, Playwright

CareScout | 04/2023 - 02/2026

Roles: Full-Stack Engineer (04/2023 - 06/2025); Senior Full-Stack Engineer (07/2025 - 02/2026)

Healthcare platform connecting caregivers with individuals and families seeking assistance.

- Contributed to the migration from Next.js to a custom React and Express server-side rendering architecture, reducing page load times by more than 50%, with further improvements through caching.
- Developed and maintained .NET backend services and GraphQL APIs, React/Next.js functionality, Storyblok CMS integrations, Azure services, and MSSQL data flows.
- Became a go-to engineer for backend topics, particularly database behavior, integrations, and root-cause analysis of complex production issues.
- Used GitHub Copilot daily for implementation, code analysis, debugging, refactoring, and technical documentation while retaining ownership of design decisions and code quality.

Technologies & Tools: C#, .NET, GraphQL, React, Next.js, TypeScript, Express, SSR, Storyblok, Azure, MSSQL

Links: carescout.com | partners.carescout.com

Onbe - Full-Stack Engineer | 06/2022 - 04/2023

Prepaid financial platform built on a distributed microservices architecture.

- Designed and implemented a dedicated OTP service as an independently deployable .NET component for application verification workflows.
- Integrated the service with distributed platform components using Dapr and supported backend integrations, MSSQL development, Azure services, and reliability improvements.

Technologies & Tools: .NET, C#, Dapr, Microservices, MSSQL, Azure Storage, Azure Data Factory, AngularJS

ADDITIONAL EXPERIENCE & PROJECTS

Certification Exam Management Platform for Vehicle Inspection Controllers

- Designed and implemented one of the platform's most complex workflows for professional certification exams for vehicle inspection controllers, covering examination periods, exams, commissions, candidate assignment, and commission-based evaluation across backend, database, and frontend layers.
- Identified ambiguities and missing cases in the documentation and worked directly with the end client to define expected business behavior before implementation.

- Used Cursor selectively for routine implementation steps while independently designing complex domain logic and resolving ambiguous requirements.

Technologies & Tools: .NET, C#, MSSQL, Redis, Elasticsearch, React, TypeScript, TanStack Query, Redux, Ant Design, Cursor

Custom Shopify Webshop for Automotive Parts & Accessories

Independently delivered a custom Shopify webshop for automotive parts and accessories based on a bespoke design that could not be achieved with standard Shopify components.

- Developed a custom Liquid theme with reusable sections, templates, collection filtering, and storefront behavior for the homepage, product pages, collections, contact page, and about page.
- Used an AI-assisted development workflow with Cursor and Claude Code to accelerate implementation, code exploration, refactoring, and debugging while independently validating design, functionality, and code quality.

Technologies & Tools: Shopify, Liquid, JavaScript, HTML, CSS, Claude Code, Cursor

Real-Time Betting Application – Frontend Architecture & Development

Independently led the frontend architecture, implementation, backend integration, and delivery of a real-time betting application.

- Built live match-result functionality with WebSockets and designed the client-side data flow for minimal latency and reduced risk of stale information.
- Managed connection state, incoming events, application-state synchronization, REST API integration, and complex UI behavior.

Technologies & Tools: React, JavaScript, WebSockets, REST APIs

JavaScript & React Lecturer | QStation

03/2022 - 07/2023 | Banja Luka, Bosnia and Herzegovina

- Designed and delivered the curriculum, lectures, exercises, and assignments for two groups of 10-12 participants, teaching twice per week.
- Mentored individual projects, used MoSCoW prioritization to define consistent completion criteria, and supported debugging, presentations, and certification assessment.

Full-Stack Engineer | JS Guru

01/2022 - 06/2022 | Banja Luka, Bosnia and Herzegovina

Worked with the client and a cross-functional leadership and design team during application inception.

- Helped define MVP scope, evaluate feasibility, clarify requirements, and improve user flows while aligning client expectations, UX, and technical constraints.

EARLIER ENGINEERING EXPERIENCE

Software Engineer | TTTech Auto

01/2021 - 01/2022 | Banja Luka, Bosnia and Herzegovina

Transitioned from the RT-RK internship after graduation to the MotionWise High-Performance Computing Platform for Audi, joining the final integration and release-preparation team.

- Integrated and deployed MotionWise components on NVIDIA Xavier hardware and investigated system-level issues on the target environment.
- Served in the final debugging layer before release, analyzing logs, runtime behavior, and communication across the platform, hardware, and independently developed vehicle components; implemented and verified fixes on target hardware.
- Supported release workflows for systems including Adaptive Cruise Control, automated parking, and emergency braking, and automated repetitive engineering tasks with Python.

Technologies & Tools: C, Python, QNX, NVIDIA Xavier, MotionWise, Jenkins

Software Developer Intern | RT-RK

06/2020 - 01/2021 | Banja Luka, Bosnia and Herzegovina

Automotive Video Logger Visualization App – Diploma Project | 06/2020 - 10/2020

- Independently designed an Android application for real-time telemetry and simultaneous streaming from one to four MJPEG cameras, using socket-based IP communication and a simulator that reproduced the intended physical-device protocol.

Technologies & Tools: Java, Android, TCP/IP Sockets, MJPEG, Real-Time Data, Multi-Camera Streaming

ZF Embedded Vision Demo | 10/2020 - 12/2020

- Developed and debugged on TDA2Px hardware a lightweight algorithm for detecting camera-lens obstruction or contamination, gaining hands-on embedded-vision experience.

Technologies & Tools: C, VisionSDK, TDA2Px, Embedded Systems, Computer Vision

EDUCATION

Computer and Informatics Engineer | Faculty of Electrical Engineering, University of Banja Luka

10/2015 - 12/2020 | Banja Luka, Bosnia and Herzegovina

LANGUAGES

Serbian: Native | **English:** Professional working proficiency