Jovan Jevtić

work, experience and skills

Quick Info

This portfolio strives to comprehensively present my personality and work, but primarily focuses on professional activities in the field of software engineering and information technology and computing as a whole. The fundamental characteristics that shape my personality are the need for creation, curiosity, the need to understand the world around me, and a thirst for new knowledge, which from the earliest years found their most fertile ground in software, and informatics and computing in general. At twelve years old began my, already, daily journey through code and computer systems - from microprocessor architecture to the sophisticated levels of abstraction that characterize application software today. Over the years I have built significant experience in software development, primarily through independent work and freelancing.

This technical application finds its place, not only as one of the separate aspects but as part of the complete picture, whose all elements serve the ideal of a modern 'polymath' inspired by the ancient concept of a versatile person. I am deeply devoted to classical literature and philosophy, I dedicate myself to music through playing piano, and I constantly expand my polyglot spectrum. All these areas converge towards the same goal - innovative creation that combines technical precision with humanistic vision. In that sense, I see myself as homo poeticus who seeks creative synthesis through all aspects of work.

I am currently expanding my formal education through software engineering studies, building upon my completed high school degree where I earned the title of Computer Science and

Informatics Technician. Besides years of work on various software projects, my passion has also manifested through active participation in programming competitions and IoT innovation during elementary and high school periods.

Software

After more than a decade of practical engagement with computers, and almost a decade of software wrighting, today I can present my technical knowledge and experience as the result of years of consistent dedication to every aspect of software development – from basic logic and understanding hardware limitations to complex architectures of distributed systems. Although my starting point was simple fascination with the possibility of creating from nothing using code, over time this developed into professional orientation where I mastered almost every segment of modern software development. Already at twelve years old, I began building my first static web pages, using basic technologies for content display and styling. That early period was my field of experimentation, but also an introduction to systematic thinking and structured learning. As my interest expanded, focus naturally shifted to dynamic systems, where I began developing my own frontend applications, paying special attention to user interface, user experience and general accessibility of interaction.

Soon after that, backend logic became my logical next step. I began building APIs, implementing business logic and solving problems that arise when applications must communicate with databases, manage users, respect security protocols and enable scalability. That experience wasn't abstract – it was about real projects, about living systems that had to function in real conditions, with real users and needs. What particularly shaped me was going through all development phases independently – idea, design, implementation, testing, deployment, optimization. Precisely that independence required me to deeply understand how every layer of the system functions and how they coexist with each other. That need for everything to function harmoniously, for everything to be elegant, fast, secure – led me to broader understanding of system architecture and technical project leadership.

Over time, I developed solutions that couldn't be reduced to simple patterns. I worked on web portals for news agencies, e-commerce systems with complex inventory and payment logic, internal tools for business analytics, and services that use data from various APIs – financial, crypto markets, health standards. By building systems that connect many different data sources and interfaces, I had to take care of performance, security and scalability, which further sharpened my engineering sense.

In recent years, I have focused intensively on mobile development, using Expo and React Native as the core of my architecture. I built applications that are not just extended interfaces of web

solutions, but independent entities that use geolocation, offline capabilities, authentication, push notifications, camera work and many other functionalities characteristic of modern mobile products. Through developing these systems, I gained deep understanding of the entire ecosystem – from state management layers and local databases to UI performance and application distribution through stores.

Authentication and security questions hold a special place in my development. I have always built my own solutions for login systems, not satisfied with ready-made libraries, but designing authentication protocols that correspond to the specificities of each system. I built flows that support all possible user scenarios – multiple devices, automatic token renewal, protection from abuse and identity verification through complex request and response logic. These solutions are not theoretical – they are tested on real users and serve as the foundation for stable production applications.

My strongest competencies and deepest understanding are directed precisely towards broader architecture – how to design a system that can grow, that can live for years, that won't fall when the number of users increases tenfold. That sense for the 'big picture' always guides me towards solutions that are not only functional, but also technically beautiful, long-term sustainable and precisely documented. One of my most important technical challenges and successes relates to solving a specific problem within my startup, which involved verification of authentic physical locations without relying on Google Places API – which is, moreover, almost completely withdrawn from open use. By combining web scraping, AI analysis, local heuristics and calling multiple public and closed sources, I created a system that enables validation of entity presence like cafes, events and spaces, without dependency on closed commercial platforms.

A special focus of my work is the contemporary application of artificial intelligence in practical software systems. Within my startup project, I developed an AI assistant that enables users a personalized experience through contextually adapted content, connecting them with events, places and points of interest based on behavior, location and interests. This system combines data analysis, semantic processing, geolocation and vector search to achieve interaction similar to real dialogue, but with deeply contextual understanding. More technically deep, my work encompasses LLM integration through APIs, as well as development of systems that use retrieval-augmented generation principles. In this context, I use embedding models, vector databases and proprietary filtering methods to enable data search based on meaning, not mere form. Solutions arising from this enable intelligent connection of users with information, as well as automation of numerous processes within the application.

I am skilled in establishing interface logic that communicates with LLMs through defined conversational flows, fallback mechanisms and evaluation of response relevance, ensuring a high

degree of user satisfaction and technical control over AI behavior. Besides practical work, AI is an area where I also formally invest significant intellectual focus. During my software engineering studies, I chose elective courses oriented towards machine learning, statistical modeling and artificial intelligence, to gain deeper mathematical and theoretical understanding of this field.

Technologies

In my engineering approach, I don't bind myself to a specific programming language, but rather start from the nature of the problem and the goals that the software needs to achieve. As a language agnostic engineer, I move easily through most modern high-level languages, choosing technology based on its suitability, not personal preference. At the same time, my understanding of computer systems doesn't start at the application code level, but includes a deeper layer — knowledge of system programming principles, processor architecture, computer logic and working with low-level languages like Golang and C/C++. This knowledge is not merely theoretical, but is reflected in practice through the ability to design optimized, safer and more stable systems, based on fundamental understanding of how software actually functions 'under the hood'.

Although through years of work I have experience with a wide spectrum of technologies, below I highlight an approximate technology stack that I most often return to during software solution development. It is not final, but reflects what in practice shows the highest reliability, flexibility and sustainability in professional development conditions.

Frontend

React, React Native, Expo, Next.js, Angular

Backend

Node.js, Express, Golang, Python

Databases and Data Management

PostgreSQL, MongoDB, Redis, Kafka

Mobile Development

React Native (CLI and Expo), Android Studio, Xcode, Fastlane, CodePush, Hermes

DevOps and Infrastructure

Git, Docker, CI/CD, Linux

Cloud Platforms

Cloudflare, Amazon Web Services, Google Cloud, Firebase

Design, Testing and Tools

Figma, Postman, Jest, Detox, Cypress

Experience

Lead Mobile Developer

◊ Architecting and developing complete social networks on React Native platform with functionalities at the level of the most advanced global platforms.
◊ Implementation of sophisticated feed algorithms with personalized content delivery systems, real-time updates and advanced engagement metrics.
◊ Creating complex user profiles with hierarchical account types, role-based permissions and granular privacy controls.
◊ Development of advanced media processing systems - image/video upload, real-time filters, compression algorithms and cloud storage optimization.
◊ Implementation of real-time messaging infrastructure with end-to-end encryption, group chats, media sharing and push notification systems.
◊ Designing social discovery mechanisms with location-based services, interest matching algorithms and sophisticated recommendation engines.
◊ Creating complex notification systems with granular user controls.
◊ Development of custom native modules for direct OS-level integrations, including camera pipeline modifications and secure storage implementations optimized for enterprise-scale deployment.
◊ Architecting background task scheduling systems with auto-scaling capabilities for data synchronization and location tracking within platform constraints.
◊ Implementation of complex navigation flows with deep linking and universal link handling designed to support viral user acquisition patterns.

Senior Backend Architect

◊ Designing and implementing event-driven microservice architecture with auto-scaling capabilities and sub-100ms response times under any load conditions.
◊ Building distributed systems using Docker containerization with intelligent load balancing and failover mechanisms across multiple availability zones.
◊ Architecting database sharding and replication strategies for PostgreSQL clusters designed to seamlessly handle exponential data growth.
◊ Implementation of Turborepo-based monorepo architecture that reduces build times by 60% through intelligent caching and task parallelization.
◊ Designing modular package architecture that enables code reuse across web, mobile and API surfaces.
◊ Building custom deployment orchestration tools for coordinated releases across multiple services and environments.

Senior Full-Stack Developer

◊ Designing and implementing scalable web portals for news agencies with real-time content management systems optimized for multi-admin workflow and exponential reader growth.
◊ Development of advanced e-commerce platforms with complex inventory management logic, multi-vendor functionalities and integration with multiple payment gateways (Stripe, PayPal, local banks).
◊ Implementation of distributed caching strategies using Redis for application performance optimization with 70% reduction in loading times.
◊ Creating internal tools for business analytics with real-time dashboards and custom reporting systems.
◊ Integration with financial APIs (Alpha Vantage, Yahoo Finance) and crypto market data for developing trading analytics platform.
◊ Implementation of ETL processes for processing large amounts of structured and unstructured data.

Specialized Competencies

◊ Managing cloud resources on platforms (AWS, GCP, Cloudflare) with automated scaling groups.
◊ Implementation of CI/CD pipelines using GitHub Actions, Docker and Kubernetes for zero-downtime deployments.
◊ Database sharding and read replica strategies for PostgreSQL systems with millions of records.
◊ Designing custom authentication protocols with multi-factor authentication and OAuth 2.0/JWT implementations.

◊ Implementation of zero-trust security model with end-to-end communication encryption.
◊ Development of session management systems supporting simultaneous sessions on multiple devices with automatic token refresh mechanisms.
◊ Implementation of RAG (Retrieval-Augmented Generation) systems with vector embedding for semantic search.
◊ Integration of Large Language Models (GPT, Claude) through optimized API communication flows.
◊ Development of AI assistant with contextual understanding and personalized content delivery system.

Startup and Innovative Projects

◊ Lead developer on complex mobile platform (iOS/Android) with web component.
◊ Implementation of proprietary algorithm for physical location verification without Google Places API dependencies.
◊ Development of AI-powered recommendation engine with geolocation intelligence for personalized user connections.
◊ Creating custom web scraping systems with AI analysis for Point of Interest entity validation.
◊ Implementation of real-time collaboration features with WebSocket communication and conflict resolution algorithms.
◊ Development of progressive web application with offline-first approach and service worker optimizations.

System Administration and Environment Management

◊ Working with Linux operating systems and remote access via SSH for configuration and maintenance of server environments.
◊ Understanding distributed system principles and basic management practices.
◊ Experience with scripting and task automation in terminal environment.
◊ Application of infrastructure-as-code approach using tools like Terraform and Ansible for consistent environment provisioning.

Startup and AI Work

Startup Project

Mobile application for Android and iOS, which I plan as a complete web platform. A social network intended to enable users to connect with other people, relevant social events and physical locations of interest (POI).

Through AI assistant integration, I developed a complex verification system that enables people who are 'Points of Interest' to connect with events or places where they are present.

It's the best indicator of my work, although the code is not open-source, I'm open to presenting it with explanations of the large number of microservices and complex system architecture within the codebase.

AI Integration

AI Model Integration via API: Application of models within my personal startup - AI Assistant that personalizes content for users and enables users who are 'Points of Interest' to show as connected to events or places where they are present.

RAG Systems: Experience with RAG (Retrieval-Augmented Generation) systems – vector embedding of data and their indexing for training and enhancement of existing AI models.