

IVAN KOVAČIČ

Senior Software Engineer | Full-Stack | Backend | Technical Lead

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PROFESSIONAL SUMMARY

Driven and results-oriented Seasoned Senior Software Engineer with extensive experience in full-stack development, distributed systems, and high-traffic production environments. Strong track record in system design and architectural decision-making across Web Components microfrontends, Node.js, .NET, and cloud ecosystems. Proven ability to lead teams, mentor developers, and drive delivery through clear communication and technical direction. Trusted by clients for rapid problem-solving, high reliability, and deep understanding of business needs. Experienced in AI-driven solutions, crypto systems, automation tooling, and mobile app development through recent freelance and entrepreneurial work. Committed to building robust, scalable, and maintainable software solutions with high engineering standards.

CORE COMPETENCIES

- Distributed Systems
- System Design
- Backend Engineering
- Frontend Architecture
- Microfrontend Development
- Web Components
- Cloud Computing
- API Design
- Database Optimization
- High-Scalability
- Code Quality
- Technical Leadership
- Problem Solving
- Performance Tuning
- DevOps Practices
- Security Engineering
- AI Integration
- Crypto Applications

PROFESSIONAL EXPERIENCES

Freelance Senior Software Engineer / Founder

2024 - PRESENT

KIT

- Architect full end-to-end software solutions for international clients by combining backend engineering, automation, and system design to deliver reliable products in crypto, AI, and mobile domains under tight timelines.
- Provide comprehensive technical consulting and long-term architectural planning for startup clients by evaluating technology stacks, identifying scalability risks, establishing coding standards, and shaping product roadmaps to ensure reliable production delivery.
- Engineer a secure Telegram Crypto Exchanger by designing wallet flows, implementing safe transaction handling, and optimizing the bot for high availability, scalability, and strong operational reliability in real-world crypto environments.
- Develop AI automation tooling for a marketing agency by integrating large language models, workflow orchestration, and content-generation pipelines, significantly reducing operational overhead and manual workload.
- Build a production-ready Telegram Crypto Game with scalable bot infrastructure, resilient backend logic, and well-designed scoring mechanics capable of supporting organic user growth and high-volume message throughput.
- Create an AI-powered smart assistant mobile app in React Native by implementing speech processing, ML-powered features, and cloud integration, while providing architectural guidance and technical consulting to multiple early-stage startups.

Senior Software Engineer

APR 2022 - 2025

Endava PLC

- Lead a team of developers on a TUI engagement, coordinating delivery, and ensuring the team produced maintainable, scalable solutions.
- Optimize cross-team collaboration and delivery flow by aligning engineering processes with client expectations, improving sprint predictability, reducing integration friction, and enabling the organization to scale the microfrontend platform.
- Implement complex features in a multi-team microfrontend ecosystem using native HTML5 Web Components, Node.js, and TypeScript, ensuring robust integration, high performance, and long-term maintainability across high-traffic tourism products.
- Contribute to high-level system design discussions with senior architects by analyzing architectural trade-offs, simplifying cross-team integration challenges, and delivering clear, actionable technical proposals aligned with business goals.
- Elevate team engineering quality by conducting in-depth code reviews, mentoring developers, and introducing best practices that improved reliability, performance, and communication across multiple international Scrum teams.
- Earn consistent client praise as the "go-to person" for delivery challenges by resolving critical blockers, providing exceptional communication, and demonstrating strong understanding of business workflows and production constraints.

Tech Associate (Full-Stack Developer)

APR 2017 - MAR 2022

University of Maribor

- Delivered production-grade backend and frontend features across MERN, Node.js, PHP, and .NET stacks by designing modular components, optimizing performance, and ensuring long-term maintainability across multiple research and industry projects.
- Implemented a distributed plagiarism detection system using sharded MongoDB across 33 PC nodes, demonstrating strong distributed-systems thinking, data processing expertise, and innovative problem-solving for academic-scale datasets.
- Developed HPC prototypes using SLURM and OpenMPI by parallelizing text-mining algorithms, enabling high-speed processing of large document corpora and supporting research in scalable plagiarism detection methodologies.
- Served as primary developer for multiple EU-funded and national projects by building tourism apps, research portals, and data platforms, consistently delivering production-ready features aligned with academic and public-sector requirements.
- Integrated complex backend logic, data processing pipelines, and cross-system communication layers for portals like COVID-19 Data Portal and UMC RDIS, ensuring accuracy, reliability, and stable long-term operation in critical environments.

Student Research Associate / Teaching Assistant

MAR 2016 - MAR 2017

University of Maribor

- Assisted in the development of a WebRTC-based measurement interface for Dewesoft by implementing real-time graphing features using Node.js, socket.io, and knockout.js, contributing to a functioning industry-backed prototype.
- Supported academic activities by helping students with programming assignments, providing technical guidance, and improving their understanding of software fundamentals through structured explanations and practical examples.
- Organized programming workshops and Code Week events by designing beginner-friendly materials, engaging with students, and promoting computer literacy across local schools and the broader community.
- Contributed to national programming competitions by assisting with logistics, task preparation, and evaluation, strengthening the competitive programming environment for Slovenian secondary-school and university students.
- Collaborated with faculty and industry partners by providing development support, testing experimental features, and learning professional workflows that shaped future technical and communication strengths.

ISP Tech Support

JUN 2014 - AUG 2014

A1 (formerly Amis d.o.o.)

- Diagnosed complex network issues for end users by analyzing connection patterns, reviewing routing and protocol behavior, and providing clear resolutions that improved customer experience and service efficiency.
- Resolved customer-facing technical incidents by applying strong foundational networking knowledge and ensuring consistent service quality across a variety of real-world home and small-office network setups.
- Communicated with clients effectively by translating technical concepts into understandable language, supporting both technical and non-technical users, and maintaining high satisfaction metrics during support calls.
- Investigated system-level network behavior using diagnostic tools and logs, helping the support team identify root causes related to configuration errors, latency spikes, and infrastructure inconsistencies.
- Strengthened understanding of distributed systems and internet protocols by working directly with low-level networking issues, laying the groundwork for later work in backend engineering and system architecture.

EDUCATION

B.Sc. in Computer Science (dipl. inž. rač. in inf. tehnol.)

2014 - 2017

University of Maribor

Prva Gimnazija Maribor

2010 - 2014

- Advanced mathematics focus, strong analytical foundations.

ACHIEVEMENTS

- Go-to engineer for delivery-critical issues, consistently resolving complex problems under pressure.
- Recognized as a strong technical leader, mentoring teammates and guiding architecture decisions.
- Quickly established trusted client relationships, often given high-impact responsibilities within weeks.
- Praised for broad technical knowledge, fast learning, and high-quality system design contributions.
- Described by peers as "one of the best colleagues to work with" due to communication, professionalism, and work ethic.

AWARDS

Citation for Professional & Research Work

2018

- Awarded for contributions to research, applied projects, and organizing programming workshops with 700+ attendees.

PUBLICATIONS

I. Kovačič, D. Bajš, M. Ojsteršek

- Methodology for the assessment of text similarity in the CORE dataset.
- StuCoSReC 2021, pp. 51–56.
- Research on HPC-based distributed plagiarism detection.

TECHNICAL SKILLS

- Backend:** Node.js, Express.js, C# .NET, PHP (Yii, Laravel), Python, Golang
- Frontend:** React, Angular, HTML5 Web Components, JavaScript/TypeScript, HTML/CSS
- Databases:** MongoDB, Postgres, MS SQL, MySQL, Distributed DBs
- Cloud & DevOps:** AWS, Docker, CI/CD
- Other:** System Design, Distributed Systems, Microfrontends, WebRTC, HPC, OpenMPI, SLURM
- Languages:** Slovenian, English (C2), German, Serbian, Croatian, Russian

HOBBIES

TV Series | Chess | Mathematics & Science Learning | Programming for fun