

MARKO MARKOVIC

Software Engineer



Contact



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Skills

Backend Development

- Python (Flask)
- Node.js (Express.js)
- PHP (Laravel)
- SQL & PostgreSQL
- RESTful API
- Docker & Containerization

Frontend Development

- HTML5, CSS3, Bootstrap
- JavaScript (ES6+)
- React.js & Redux
- Responsive Web Design

Tools & Collaboration

- Git & GitHub
- TDD
- Deployment (Heroku, CI/CD basics)

Additional Knowledge

- Rust, C
- Web Security Fundamentals
- Authentication & Authorization

Address

Seilerweg 5
2557 Studen BE
Switzerland

Education

Swiss Joint Master of Science in Computer Science | Specialization in Distributed Systems

2019 - 2024
University of Bern

Bachelor of Computer Science

2014 - 2019
University of Nis

Languages

- English, Advanced
- Serbian, Native
- German, Beginner

Summary

I am a motivated and adaptable Full-Stack Engineer with a Master of Science in Computer Science, specializing in Distributed Systems. Through hands-on experience in backend and frontend development, system architecture, and real-time data processing, I have worked with Python (Flask), Node.js (Express.js), React.js, PostgreSQL, and Docker to build scalable and secure applications. My work at the University of Bern and [Cryptomine.rs](#) has given me valuable exposure to web development, IoT architectures, and security best practices. While I have gained a strong foundation in full-stack development, I am always eager to expand my knowledge, refine my skills, and take on new challenges. I am a fast learner, hardworking, and thrive in dynamic environments where I can contribute while continuously improving. I am excited to join a team where I can grow as an engineer, learn from experienced professionals, and build impactful solutions.

Experience

Full Stack Developer at [Cryptomine.rs](#)

Feb 2014 - Sep 2019

Full-Time

Situation: Developed for [Cryptomine.rs](#), Serbia's premier platform offering crypto news, a marketplace for mining machines, P2P crypto trading, and niche consultation services.

Task: Assigned to design, develop, and enhance the platform, focusing on user experience, security, and e-commerce capabilities while also supervising Ethereum-based mining operations.

Action:

- Led full-stack development using Laravel (PHP) for backend and PostgreSQL for database while implementing RESTful API architectures.
- Enhanced the frontend experience with JavaScript (ES6+), Bootstrap, and CSS3, optimizing responsiveness and interactivity.
- Containerized critical backend services using Docker to improve scalability and deployment efficiency.
- Introduced Git & GitHub for version control, ensuring smoother development workflows and team collaboration.
- Strengthened platform security with advanced authentication mechanisms, enforcing best web security practices to protect user transactions.
- Developed a React-based dashboard for real-time analytics, improving platform usability and engagement.
- Monitored and managed GPU-based Ethereum mining operations, optimizing performance through custom software scripts and GPU BIOS modifications.

Result:

- Achieved a 30% increase in session duration and a 40% rise in mobile engagement.
- Ensured the platform's trading domain remained breach-free, safeguarding thousands of users.
- Boosted mining efficiency by 25%, leading to a 15% growth in monthly profits.

Web Developer & System Architecture at University of Bern

Feb 2022 - Aug 2024

Full-Time

Situation: Tasked with designing and implementing a comprehensive system for a Smart City initiative at the University of Bern, aimed at gathering, managing, and presenting real-time city sensor data.

Task: Develop a LoRaWAN-based sensor, construct a stable database architecture, ensure real-time data access, and create a secure system for data verification and transfer.

Action:

- Developed backend services using Python (Flask) & Node.js (Express.js) to handle real-time data processing.
- Built a PostgreSQL database with optimized queries for managing high-frequency sensor data.
- Established an MQTT broker for real-time data streaming, ensuring seamless IoT communication.
- Designed and deployed RESTful APIs for data retrieval and analysis, enabling developers to integrate external applications.
- Implemented React.js for an interactive web interface, improving data visualization and user interaction.
- Created secure authentication mechanisms using JWT and OAuth, enhancing system security.
- Developed CI/CD pipelines for automated testing and deployment of the web application.
- Deployed services on Heroku & Docker containers, ensuring a scalable and resilient infrastructure.
- Designed an IOTA Smart Contract in Rust for secure and tamper-proof data transactions.

Result:

- Delivered a holistic Smart City data system, enhancing the city's ability to monitor, react to, and analyze various urban parameters in real-time.
- Reduced sensor data processing time by 40%, improving real-time decision-making.
- Successfully deployed a scalable microservices architecture, enabling further city-wide expansion