NEMANJA KATAVA

SOFTWARE AND DATA ENGINEER

CV

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Driving licence: B

PROFESSIONAL PROFILE

Software and Data engineer specializing in data, full-stack development, API and enterprise validation for Microsoft Purview security and compliance solutions. Experienced in test strategy, automation, large-scale datasets, scalability, data accuracy, Azure, ML, alongside hands-on full-stack development in Java, Spring Boot, Angular, Python and SQL.

MICROSOFT PURVIEW | EXACT DATA MATCH (EDM) | API TESTING | AZURE COSMOS DB | AZURE DEVOPS | TEST AUTOMATION

WORK EXPERIENCE

Software Test Engineer

Jun 2025 - July 2026

Microsoft - Belgrade, Serbia

Microsoft engagement delivered through vendor Centific.

- Coordinated testing activities for Microsoft Purview Exact Data Match (EDM), organizing test execution, prioritizing coverage, and aligning validation efforts across the project team.
- Designed and executed test strategies for backend services, APIs, and enterprise data-protection workflows.
- Developed automated checks for latency and data accuracy, improving testing efficiency and reliability.
- Created and curated large-scale synthetic datasets and used representative client-provided datasets to validate end-to-end classification workflows within Microsoft Purview Information Protection, verify classification accuracy, and assess system scalability under production-scale data volumes.
- Performed scalability testing and validated Information Protection and data-classification workflows.
- Diagnosed complex data-processing failures by analyzing error records in Azure Cosmos DB, deployment logs, and monitoring data to identify root causes.
- Configured Azure Cosmos DB provisioned throughput (RU/s) to support data-processing workloads in test environments.
- Tracked defects in Azure DevOps and collaborated with software engineers to reproduce issues, verify fixes, and support high-quality releases.
- Owned end-to-end testing for critical product features, identifying defects early and improving overall product reliability.

Fraud Operations Analyst

Oct 2023 - Jun 2025

Microsoft - Belgrade, Serbia

Microsoft engagement delivered through vendor Centific.

- Analyzed transactions and customer data to detect fraud while ensuring compliance with security and privacy regulations.
- Identified fraudulent patterns and made accurate risk-based accept/reject decisions.
- Monitored emerging risk trends to help prevent financial losses.
- Optimized workflows to improve operational efficiency and decision-making.
- Consistently met KPIs for accuracy, productivity, and turnaround time.
- Collaborated with cross-functional teams to strengthen fraud detection and compliance processes.

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SELECTED ENGINEERING PROJECTS

Portfolio: https://nemanjakatava.com/

1. FraudLens - ML-Assisted Fraud Detection Platform (Full-stack application)

Java, Spring Boot, Spring Security, Angular, TypeScript, MySQL, Python, FastAPI, scikit-learn

- Designed and implemented a full-stack platform for fraud detection and transaction investigation.
- Integrated a logistic regression model that provides fraud probability, risk level, and contributing risk factors.
- Implemented JWT authentication and role-based workflows for analysts and administrators.
- Built transaction claiming, Hold, Approve/Reject decisions, analyst assistance, chat, and audit logging.
- Added real-time synchronization using Server-Sent Events and server-side pagination for large datasets.
- Developed an ML feedback and retraining workflow based on verified analyst decisions.
- Implemented CSV import and administrative Excel/PDF reporting.

Synthetic transaction data and fraud labels. Analysts make final decisions.

Frontend | Backend | Live demo | Walkthrough PDF

Demo login: test@fraudlens.com **Password:** -!testanalyst123!-

2. Learning Management System (Full-stack web application)

Java, Spring Boot, Spring Security, Angular, MySQL

- Designed and implemented a full-stack platform for managing users, courses, and enrollments.
- Built role-based authentication and authorization using Spring Security.
- Developed RESTful APIs for user management, course management, and student enrollment.
- Designed relational database schema and implemented SQL queries.
- Integrated Angular frontend with backend services.

Frontend | Backend | Live demo | Video demo

Demo login: test **Password:** 123456 (Student / Professor)

3. Brandy Shop - Online Drink Store (E-commerce platform)

Java, Spring Boot, Spring Security, Angular, MySQL

- Developed backend services for product catalog, orders, and users.
- Implemented authentication, authorization, and secure API endpoints.
- Built Angular frontend consuming REST APIs.
- Designed and implemented MySQL database model.

Frontend | Backend

4. UVID - Construction Quality and Defect Tracking (In development)

Angular, TypeScript, Java, Spring Boot, MySQL, Flyway

- Developing an Angular demonstration for projects, buildings, units and rooms.
- Built defect reporting and review with comments, photos and reports in the frontend demonstration.
- Set up initial Spring Boot/MySQL infrastructure with Flyway migrations and a health endpoint.

In development. Seeking investors to support further product development.

Frontend | Backend | Live demo Open in private window if browser blocks page.

5. Apartman Kale - Accommodation Website and Calendar Integration

HTML, CSS, JavaScript, Python, Flask, SQLite, AWS Lightsail

- Built Serbian and English pages with a photo gallery and booking inquiries.
- Integrated Booking.com and Airbnb availability imports and an admin panel for date management and calendar synchronization.
- Deployed on AWS Lightsail with Linux, Nginx, domain configuration and HTTPS.

Frontend | Backend | Live website

EDUCATION

BSc in Software and Data Engineering

Oct 2019 - Oct 2023

Singidunum University

Novi Sad, Serbia

TECHNICAL SKILLS

BACKEND

Java, Spring Boot, Spring Security, SQL, Python

FRONTEND

Angular, TypeScript, JavaScript, HTML, CSS

TOOLS

Git, GitLab, GitHub, IntelliJ IDEA, Visual Studio Code, AI tools, GitHub Copilot, Azure DevOps Pipelines/Boards/Repos, MySQL, log monitoring, Microsoft Teams, Postman, Hoppscotch, PowerShell

MACHINE LEARNING

scikit-learn, pandas, classification models, feature engineering, model training and evaluation, FastAPI

LANGUAGES

English (fluent)
Serbian (native)

COURSES

English Language

Supernova Language School

Sept 2016 - Jun 2017