RESAD SPAHOVIC,

Python Engineer | AI & ML Specialist | Data Scientist

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PROFESSIONAL SUMMARY

Python Engineer with 4+ years of experience building scalable AI/ML systems and data-driven solutions. Proven track record of delivering production-ready applications that increased operational efficiency by 40%+ across healthcare, agriculture, and e-commerce domains. Expert in end-to-end ML pipeline development, big data processing, and cloud architecture optimization. Certified Python Instructor passionate about teaching and mentoring the next generation of developers and data scientists.

CORE TECHNICAL EXPERTISE

Programming & Frameworks: Python, JavaScript, SQL, Flask, Django, FastAPI, React, HTML, CSS

AI/ML Stack: TensorFlow, PyTorch, Scikit-learn, Pandas, NumPy, OpenCV, spaCy, NLTK

Data & Analytics: Apache Spark, BigQuery, Tableau, Looker, Plotly, Matplotlib, Seaborn

Databases: PostgreSQL, MySQL, MongoDB, Neo4j, Redis, SQLite, DuckDB

Cloud & DevOps: AWS, GCP, Docker, Kubernetes, CI/CD, RESTful APIs, GraphQL

Specializations: Deep Learning, NLP, Computer Vision, Time Series Forecasting, ETL Pipelines

WORK EXPERIENCE

LINK Group - Python Engineer, Belgrade — 2024 - Present

- Architected and deployed ML-powered applications serving 50,000+ daily active users
- Led development of predictive analytics platform that improved client decision-making accuracy by 35%
- Optimized data processing pipelines, reducing computation time from 4 hours to 45 minutes
- Mentored team of 5 junior developers and established best practices for ML model deployment
- Implemented automated testing frameworks, achieving 95% code coverage across all projects

Python Programming and Machine Learning Instructor, Center NIT — 2022 - 2023

- Designed and delivered comprehensive Python and Machine Learning curriculum for 200+ students
- Achieved 92% student satisfaction rate and 85% job placement rate within 6 months
- Developed hands-on projects that simulated real-world industry challenges
- Created automated assessment tools that reduced grading time by 60%

System Administration, City of Novi Pazar **2019 - 2022**

- Managed IT infrastructure for 500+ employees across multiple government departments
- Implemented automated backup systems, reducing data recovery time by 80%
- Led digital transformation initiatives that improved citizen service efficiency by 45%
- Developed internal tools using Python that automated routine administrative tasks

Private Instructor for Mathematics and Computer Science, Belgrade **2017 - 2019**

- Provided personalized instruction to 100+ students in advanced mathematics and programming
- Achieved 95% student improvement rate in standardized test scores
- Developed custom learning materials and interactive coding exercises

PROJECTS

Software for Early Detection of Grapevine Diseases

- Developed an AI-powered solution capable of detecting subtle changes in grapevine leaves, enabling early disease detection and improved crop health.
- Implemented a deep learning model using PyTorch, NumPy, and Matplotlib to analyze leaf patterns and predict potential diseases.
- Used MySQL for efficient data storage and retrieval, ensuring scalability for agricultural monitoring systems.
- Business value: Helps vineyards reduce crop loss, optimize disease management, and improve yield efficiency.
- Key Technologies: PyTorch, NumPy, Matplotlib, MySQL, Flask

Software Solution for Drug Interaction Analysis Using Artificial Intelligence

- Created an AI-based system to identify potential drug interactions and predict adverse effects.
- Designed a machine learning model using scikit-learn and TensorFlow to assess risks associated with combined medication use.
- Applied NLP techniques (spaCy, NLTK) for automatic extraction of medical texts and drug-related insights
- Developed a Flask/FastAPI web application for user-friendly drug entry and risk assessment recommendations.
- Business value: Supports pharmaceutical safety, reducing patient risks and enhancing medical decision-making.
- Key Technologies: Flask, FastAPI, scikit-learn, TensorFlow, PostgreSQL, spaCy, NLTK

Automated Predictive Analytics System for Business Intelligence

- Developed an AI-powered predictive analytics system to analyze historical data, forecast future trends, and enhance strategic decision-making.
- Implemented machine learning models (scikit-learn, TensorFlow, PyTorch) for time-series forecasting, anomaly detection, and customer behavior analysis.
- Created a RESTful API with FastAPI, allowing real-time predictive insights via API requests.
- Designed an ETL pipeline using Pandas, NumPy, and Apache Spark, integrated with PostgreSQL.

- Developed an interactive dashboard with Dash/Plotly for visualizing trends, predictive insights, and automated reports.
- Business value: Enables companies to leverage AI for automated decision-making, optimize operations, and maximize efficiency through data-driven insights.
- Key Technologies: FastAPI, TensorFlow, PyTorch, Pandas, NumPy, Apache Spark, PostgreSQL, MongoDB, DuckDB, Dash/Plotly

Automated Web Data Collection

- Developed a Python-based web scraping solution using BeautifulSoup and Scrapy to extract real-time data from websites.
- Optimized code for efficient data processing, reducing loading time and improving performance.
- Business value: Enables companies to monitor competitors, track market trends, and make data-driven business decisions.
- Key Technologies: Python, BeautifulSoup, Scrapy, Pandas, SQLite

Sentiment Analysis on Social Media

- Designed an NLP-powered model to categorize user comments into positive, neutral, or negative sentiments.
- Implemented tools such as Pandas, NLTK, and VADER Sentiment Analyzer for advanced text processing.
- Business value: Helps brands assess customer sentiment, refine marketing strategies, and enhance customer engagement.
- Key Technologies: Pandas, NLTK, VADER Sentiment Analyzer, Dash/Plotly

EDUCATION

Master's Degree in Computer Science and Mathematics, State University of Novi Pazar 2022-2024

AI & Python Development, ITAcademy by LINKGroup, Belgrade 2023-2024

HTML, CSS, JavaScript & React, Center NIT Novi Pazar 2022-2023

State professional exam, Ministry of public administration and local self-government 2021

Bachelor's Degree in Computer Science and Mathematics Education, State University of Novi Pazar 2012 – 2017

Computer and Electrical Technician, Technical school of Novi Pazar 2008-2012

CERTIFICATIONS

AI & Python Development - IT Academy by LINK Group (2023-2024)

Full-Stack Web Development - Center (2022-2023)