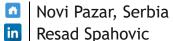
# RESAD SPAHOVIC,

# Python Engineer | AI & ML Specialist | Data Scientist





+381 62 266996 resadsp



resadspahovic94@gmail.com resadspahovic.com

#### 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

#### **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%

<sup>\*\*</sup>AI/ML Stack:\*\* TensorFlow, PyTorch, Scikit-learn, Pandas, NumPy, OpenCV, spaCy, NLTK

<sup>\*\*</sup>Data & Analytics:\*\* Apache Spark, BigQuery, Tableau, Looker, Plotly, Matplotlib, Seaborn

<sup>\*\*</sup>Databases:\*\* PostgreSQL, MySQL, MongoDB, Neo4j, Redis, SQLite, DuckDB

<sup>\*\*</sup>Cloud & DevOps: \*\* AWS, GCP, Docker, Kubernetes, CI/CD, RESTful APIs, GraphQL

<sup>\*\*</sup>Specializations:\*\* Deep Learning, NLP, Computer Vision, Time Series Forecasting, ETL Pipelines

# 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 drugrelated 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
Al & 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**

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

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