

DAMIR ZUNIC

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DATA SCIENTIST | MACHINE LEARNING ENGINEER | TABLEAU DESKTOP SPECIALIST

Analytical IT professional, with experience in implementing and managing complex IT systems. A deep passion for data together with a constant drive for learning, prompted to pursue a career in data science and machine learning. Driven by curious nature, utilize data science techniques and capabilities of modern AI/ML technology to extract valuable insights from data. Present stories told by data to others through captivating and intuitive visualizations.

EDUCATION

- **AWS Certified Cloud Practitioner**, AWS Training and Certification, 2024
- **Machine Learning Engineer**, FourthBrain, 2022
 - The program used real world data in hands-on, end-to-end ML projects in a real-world setting. Developed models were deployed as containerized web applications in cloud-based production environments.
- **Data Analytics Boot Camp**, Butler University, Indianapolis, 2020
 - The program was focused on gaining the practical technical skills needed to solve data problems using numerous marketable technologies, including Python, Pandas, JavaScript, D3.js, SQL Databases, Tableau, Big Data, and Machine Learning.
- **Data Science (MicroMasters program)**, University of California San Diego, on edX, 2019
 - A series of four graduate level courses: "Python for Data Science", "Probability and Statistics in Data Science using Python", "Machine Learning Fundamentals", "Big Data Analytics Using Spark".
- **Master of Science (MS)**, Computer Science, University of Zagreb, Zagreb, Croatia
- **Bachelor of Science (BS)**, Physics, University of Zagreb, Zagreb, Croatia

In preparation for DS/ML positions, I undertook a range of DS/ML and Tableau courses. To access the complete list of developed projects and courses with descriptions and credentials, please visit my LinkedIn profile and portfolio website: <https://damirzunic.com>.

PROJECTS

Protein Language Modelling (Research Project) - bit.ly/Language-of-Proteins 2022
Leveraging pre-trained protein language models to predict if a given sequence of amino acids belongs to one of the researched protein groups.

- Tools/techniques: Python, Jupyter Notebook, Seaborn, Matplotlib, scikit-learn, Pandas, pipelines, PCA, FastAPI, hyperparameter tuning, Docker
- Algorithms: Logistic Regression, SVM, Random Forest, XGBoost

Bank Churn Prediction - bit.ly/Bank-Churn-Prediction 2020
Dashboard displaying likelihood of customer churn based on demographic and banking information. The app is deployed to Render and after entering new user information the app returns predictions from each model.

- Tools/techniques: Python, Jupyter Notebook, Seaborn, Matplotlib, scikit-learn, SMOTE, flask, Pandas, imbalanced-learn, pipelines, hyperparameter tuning
- Algorithms: Logistic Regression, SVM, Random Forest, XGBoost, K-NN, Keras-TensorFlow, Decision Tree

Type 2 Diabetes Risks Predictions - bit.ly/t2d-risk-predictions 2019
Predicting health risks for type 2 diabetes based on three A1C levels (no-diabetes, pre-diabetes, diabetes). Several techniques were used to overcome the imbalanced nature of data.

- Tools/techniques: Python, Jupyter Notebook, Seaborn, scikit-learn, SMOTE, hyperparameter tuning
- Algorithms: Logistic Regression, SVM, Random Forest, Gradient Boosting, AdaBoost

Croatia – Population Trend 1990 – 2018

2019

Analyzing population trend in Croatia through last three decades. Croatia was facing three huge events that could have an impact to its population.

Python version - bit.ly/Croatia-Population-Trends

- Tools/techniques: Python, Jupyter Notebook, choropleth map with Folium, Matplotlib

Tableau version - bit.ly/Croatia-Population-Decline-Tableau

- Tools/techniques: Tableau (dashboards and story)

Wine Classification - bit.ly/wine-classification

2018

Using the physicochemical attributes of wines to classify them first by type (red, white) and then by quality (low, medium, high).

- Tools/techniques used: Python, Jupyter Notebook, scikit-learn,
- Algorithms used: Logistic Regression, SVM, Decision Tree, Random Forest

TECHNICAL SKILLS

Languages: Python | SQL | PySpark | HTML | CSS | JavaScript

Data Manipulation: Pandas | NumPy | SciPy | Beautiful Soup

Visualization: Matplotlib | Seaborn | Plotly | Tableau | D3.js | Leaflet.js

Database: PostgreSQL | SQLite | MongoDB | SQLAlchemy

Machine Learning: scikit-learn | imbalanced-learn | Keras | TensorFlow | PyTorch | NLP

Other: Jupyter Lab/Notebook | Google Colab | Flask | FastAPI | Docker | git | Optuna | bash

WORK EXPERIENCE

Omdena Liverpool Chapter, Liverpool, England, United Kingdom - Remote

Junior Machine Learning Engineer – Volunteer

March 2023 – May 2023

Collaborated with an international team to develop a ML model for detecting pediatric acute lymphoblastic leukemia (ALL) using computer vision. A web app (bit.ly/Predicting-Pediatric-ALL) was deployed to classify new blood cell images. My specific contributions can be found by following this link: <https://bit.ly/Pediatric-ALL-My-Contribution>.

IBM, Indianapolis, IN

Technical Services Professional – Disk Storage

2013 – 2018

Served as subject matter expert for hundreds of massive storage systems (hundreds of TB usable capacity each) in 16 locations in 12 countries. Oversaw administration, maintenance, code upgrades, deployment, and configuration. Created and maintained wiki web pages for reporting, visualizations, and everything else related to storage environment. Conducted coaching of teammates on environment, addressing every newly implemented storage device feature.

IBM, Indianapolis, IN

Technical Services Professional – Backup and Tape Storage

2005 – 2013

Planned and managed deployment of highly available backup solutions in 8 locations in Cloud environment around globe. Worked closely with storage architects, providing feedback for improving company's backup design. Supported various backup related projects for several customers. Provided support for tape maintenance, working closely with tape librarians and technicians. Oversaw storage management consolidation and standardization, and prepared disaster recovery strategies.