

Mark Žakelj

Software Engineer & Data Scientist

markzakelj@gmail.com | github.com/MarkZakelj | linkedin.com/in/mark-žakelj-5509b1a1/

Skills

Programming Languages: Python, TypeScript/JavaScript, SQL

Machine Learning: PyTorch, XGBoost, LightGBM, ScikitLearn, Stable Diffusion, Deep Learning, Generative AI, Apache Flink, DVC, MLflow, model training & inference

Cloud & DevOps: AWS, Google Cloud Platform (GCP), Docker, Kubernetes, FastAPI, REST APIs, Redis, CI/CD

Web: React, NextJS, Express

Databases: PostgreSQL, MySQL

Experience

Machine Learning Engineer, Sportradar – Ljubljana

February 2025 – Present

- Built real-time latency-abuser detection with Apache Flink (XGBoost/LightGBM), flagging up to 2,000 abusers per day; automatically limited accounts and alerted the risk team, preventing millions in client losses.
- Developed daily Python batch models for bot and sharp-customer detection, profiling around 4 million customers per day per model and substantially reducing false positives over the previous models.
- Owned each model end to end (data, features, training, deployment, monitoring) with reproducible DVC pipelines running on AWS.

Machine Learning Engineer, KatalistAI – Ljubljana, Remote

September 2023 – July 2024

- Designed and built backend infrastructure for machine learning inference on Kubernetes, with custom auto-scaling and smart load balancing, cutting request latency by 10%.
- Trained an ML model to extrapolate undetected human-pose skeleton points
github.com/MarkZakelj/openpose-extrapolation

Fullstack Web Developer, Freelance – Ljubljana, Remote

August 2023 – Present

- Built dine.si, a private chef booking platform (client-chef chat, Stripe payments, admin panel); rebuilt fiddle-gateway.eu, a web platform for musicians, optimizing its SQL queries for a 10× data fetch speedup.

Data Scientist, Lek-Sandoz – Ljubljana, Hybrid (Student work)

July 2020 – Sept 2021

- Engineered features and trained, compared, and deployed predictive models (with hyperparameter tuning) that helped domain experts identify important features for pharmaceutical pill design.
- Built a web app that visualized predictions and enabled data exploration.

Projects

Consistent Multi-Character Image Generation

github.com/MarkZakelj/ConsistentFacesSD

- Designed a method to generate multiple characters in a single image while keeping faces consistent across images, using face detection, a face attribute matching procedure, and Stable Diffusion with IP-Adapters.

Education

UNI Ljubljana, Faculty of Computer and Information Science

Data Science – MSc degree

Nov 2024

UNI Ljubljana, Faculty of Math and Physics; Faculty of Computer and Information Science

Interdisciplinary Study of Math and Computer Science – BSc degree

June 2020

Outbrain data science summer school - learned about ML in production at scale

July 2023

Awards

First prize, UNI Ljubljana Data Science Project Competition 2022, for the team project "Insurance customer segmentation" in collaboration with Triglav d.d.