# MATÚŠ KOŠÍK RESUME

#### **PROFILE**

# Machine Learning Developer, Data Scientist, Data Engineer, Data Analyst

I develop End-to-End Machine Learning solutions, perform statistical analysis and econometric modelling. I engage in every step of the ML lifecycle, e.g. business understanding, data wrangling, model training, deployment, etc. I am proactive, analytical, critical thinker and able to lead or collaborate with a team. I have a Master's degree in Applied Mathematics.

#### **EXPERIENCE**

#### Lead Data Scientist

Kendaxa 2021 / 10 - 2022 / 12

- Led agile data science team and several projects in the Industry domain
- Continued work on product and extended its features (BOM validator)
- Created PoCs for new business usecases (predictive maintenance, geospatial analysis)
- Atlasian stack (bitbucket, jira), Google Cloud with kubernetes cluster (ArgoCD)
- Actively communicated with clients to discuss design, present solution or gather feedback

# Machine Learning Developer

Softec 2018 / 04 - 2021 / 09

- Developed ML products in various domains such as Fintech, Healthcare, IoT sensors
- Deployed services on the DC/OS cluster using DevOps tech (Docker, Jenkins, GitLab)
- Trained junior co-workers and coordinated in-house ML education and workshops

# Investment Analyst

PSLSP Insurance 2017 - 2018

Asset Risk management analyst at a subsidiary of Vienna Insurance Group

# TOP PROJECTS

#### BOM (Bill of Materials) validator

Kendaxa 2021 / 10 - 2022 / 12

Took over the product - reduced the number of False positives, Association pattern mining (Eclat algorithm), graph neighbourhood (simple embedding, GraphSage)

#### Geospatial analysis for construction vehicles

Kendaxa 2022 / 03 - 2022 / 06

Design usecases how to monetize location data from construction vehicles, implemented demos, HDBSCAN clustering, CO2 emission estimation with XGBoost

#### Detection of invalidated ID cards on photo

Trained TensorFlow segmentation model on 3D synthetic data, Designed algorithm using OpenCV to validate correct ID card shape, Implemented gRPC API service

#### Calibration of air quality IoT sensors

Softec 2020 / 01 - 2021 / 01

Designed calibration process for multiple sensors, Trained regression models to improve sensor precision, Implemented services (Grafana, TimescaleDB, Flask) for monitoring

## Prediction of cancer incidence

Softec 2019 / 09 - 2019 / 12

Researched academic papers, Implemented Age Period Cohort and ARMA models in R, Enhanced accuracy with feature engineering, Visualized results in a dashboard

#### Spoof detection

Softec 2018 / 09 - 2019 / 04

- Researched and implemented various methods to check liveness from single photo
- Trained 3 models using Keras, OpenCV, XGBoost and created dockerized flask REST API

# Banking process mining

Softec 2018 / 07 - 2018 / 12

Extensively used PySpark for data engineering, Trained LSTM neural network

#### **EDUCATION**

#### Master's degree in Applied Mathematics

Comenius University 2015 - 2017

- Field of study: Economic-financial mathematics and modelling
- Main subjects: Computer Science, Optimization, Numerical Methods, Econometrics
- Master thesis: Multifactor models of interest rates (written in english, pdf)

# Scholar Internship abroad

University of Aberdeen 2015 / 08

Numerical simulation of cellular chemical processes in C

#### Bachelor's degree in Applied Mathematics

Comenius University 2012 - 2015

- Main subjects: Statistics, Calculus, Algebra, Nonlinear Programming
- Bachelor thesis: Economic effectivity of Non-Profit Organizations in Slovakia



#### CONTACT

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## **LANGUAGES**

- Slovak
- English

# **TECHNOLOGIES**

- Python R
- </> Matlab\* </> Scala\* </> C++\*

- Docker docker-compose
- PySpark PostgreSQL HDFS

- 🖲 DC/OS 🤵 Jenkins 🕠 git 😽 Gitlab

- 🥕 Flask 🔟 Dash 🔽 gRPC
- 📃 Tensorflow 📃 Keras 📃 Gensim NLP
- OpenCV XGBoost Statsmodels

- 🗏 Pandas 📃 Numpy 📃 Scikit-learn

- Scipy CausalML Geopandas

  - \* Not actively used / Basic level

# **SOFT SKILLS**

Quick Learner

Independent

Good Explainer

Analytical thinking

# **OPERATING SYSTEMS**





**ACTIVITIES** 









