# PETER JUNG

# Mentor & Senior Machine Learning Engineer







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Location: Prague & Bratislava Remote timezone: UTC -8 to +8

## **EXPERIENCE**

## leadiQ, Series B Startup

November 2022 - Present

Senior Machine Learning Engineer

CONTRACT, San Francisco, USA

- Migrated in-house data pipeline into Databricks (running on Spark and Delta Tables), reducing the run-time of processing 60M emails from days to hours and halving the costs.
- Refactored 2 models to MLFlow and deployed them on Databricks' serverless endpoints.
- Fine-tuned and served GPT3 models.
- Wrote and debugged tens of prompts for the best behaviour from pre-trained one/few shot models.

Mentor August 2023 – Present

Mentor at CodePath.org, RevMyWork and codementor.io

VOLUNTEER, Worldwide

• Volunteering as a mentor, mainly for students and people new in tech, technical coaching, helping to learn Python, interview prep, doing code reviews to increase the quality of their code, etcetera.

## Emplifi Inc., Unicorn with a \$1 Billion Valuation

November 2020 - November 2022

Researcher

Prague, CZ

- Increased the accuracy of the multilingual sentiment analysis (PyTorch) by 21%.
- Created a multi-modal (image and text input) model written in TensorFlow that reduces the workload of the other team by 84%.
- Optimised existing models to have more than 50% faster inference speed and lower memory usage.
- Implemented a reverse image and video search engine with PyTorch and FAISS, allowing quick search in thousands of images.
- Assured all experiments were 100% reproducible using tools like MLflow, Git, DVC, and Docker.
- Started a Python educational group, presenting tens of times about the latest Python topics.

### Pilotcore Systems Inc.

March 2022 – June 2022

**MLOps** 

PART-TIME CONTRACT, Toronto, CA

- Delivered machine learning infrastructure based on Terraform (Terragrunt) infrastructure as code (IaC) on AWS for 2 clients.
- Deployed MLflow and Airflow to Kubernetes, including KEDA auto-scaling, XComs stored in S3, and workers configured for Fargate and EC2.
- Published 4 case studies and blog posts about the whole process and outcome.

## Heureka Group, a.s.

July 2019 - October 2020

Software Engineer

Prague, CZ

- Designed the architecture of the whole system, including the NLP and boosted trees model, for automatic
  product pairing, using Kafka for message streaming and Docker for deployment in Kubernetes, PyTorch and
  TensorFlow as deep learning frameworks, automating 80% of the traffic.
- Redesigned and developed the core of the main back-end microservice using FastAPI and MySQL.
- Introduced Apache Kafka for real-time data streaming for 2 internal high-impact projects.

M7, s.r.o. July 2017 – July 2019

Full Stack Developer

Bratislava, SK

• Built dozens of backends and frontends for marketing and reporting systems for BMW, GGTabak and others.

### **EDUCATION**

# Faculty of Electrical Engineering, Czech Technical University

September 2018 - May 2020

Master's degree, Artificial Intelligence

Prague, CZ

Published Using Machine Learning to Detect if Two Products Are the Same as a Diploma Thesis.

Faculty of Electrical Engineering and Information Technology of STU

September 2015 - June 2018

Bachelor's degree, Automotive Mechatronics

Bratislava, SK

## **OTHER**

- **Technical Skills**: 6 years of Software Development, 5 years of Python, 4 years of Machine Learning, 2 years of AWS, 2 years of MLOps.
- Certifications & Training: 3x AWS certified (AWS Certified Machine Learning Specialty, AWS Certified Developer Associate, AWS Certified Cloud Practitioner).
- Languages: English (fluent), French (beginner), Slovak (native), Czech (fluent).
- Achievements: MLPrague Speaker, Top 1% Vetted Developer (accepted at 8 top freelance platforms, including Turing.com and AWS).

## **PUBLICATIONS**

# On Discovering Interesting Combinatorial Integer Sequences

February 2023

• Studied the problem of generating interesting integer sequences with a combinatorial interpretation, available at <a href="https://fluffy.jung.ninja">https://fluffy.jung.ninja</a>.

## Graph Generation with Graphon Generative Adversarial Networks

September 2022

• Developed an elegant GAN model called GraphonGAN, which uses graphons implemented by neural networks as generators and graph neural networks as discriminators.

# **SIDE PROJECTS**

# Contributor of open source projects

 Pushed 700+ commits in the last year, including to projects such as PyTorch, Hugging\_Face, TensorFlow or PyPika.

# SwiftXGBoost - XGBoost machine learning framework for Swift - author

• The first Swift implementation for XGBoost gradient boosting machine learning framework with Numpy and TensorFlow support. With 3 contributors and 24 stars.