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SUMMARY

I work full-time as a CV/ML engineer at RoadAR Inc. My main expertise as a CV engineer is object detection and semantic/panoptic segmentation, but I also have experience with key-point detection and StyleGANs. Lately, I have shifted my focus to being an ML engineer to bridge the gap between raw model inference and business objectives.

EDUCATION

INNOPOLIS UNIVERSITY *2016-2020*

BACHELOR'S DEGREE IN COMPUTER SCIENCE WITH MAJOR IN DATA SCIENCE

- The first two years covered general CS topics and the following two years covered Data Science subjects.
- Final GPA: 3.36. A full transcription is available here.

EXPERIENCE

ROADLY *July 2020 - Now*

COMPUTER VISION/MACHINE LEARNING ENGINEER

The main focus of RoadAR products is the automation of asset inspection using regular smartphone cameras. Projects:

- ***Traffic Estimation and Road Accidents*** - Data gathering, training object detection model and exporting it for edge devices
- ***Road Guide-rails Inspection*** - Architecture of model, data gathering, managing data annotation and semantic segmentation model training
- ***SLAM Platform*** - Container for fast semantic/panoptic/instance segmentation
- ***Road Asset Inspection*** - 3D mapping of assets, road modeling, BEV camera estimation, inference optimization, Back-end development, and database architecture
- ***Traffic Signs Detection*** - StyleGAN for generation of underrepresented traffic signs
- ***System for Identifying Lost Pets*** - Dog face key-point detection

X5 RETAIL GROUP *June 2019 - July 2019*

MACHINE LEARNING INTERN

- ***Classification and analysis of IT Support work*** - Data preprocessing and classification of dialogues using Unsupervised ML

X5 RETAIL GROUP *February 2019 - April 2019*

MACHINE LEARNING PROJECT

- ***Classification and analysis of the shoppers at the grocery store*** - Scraping needed info from cash register logs, preprocessing data, finding text features, and implementing models.

HACKATONS

HAPPYWHALE *March-April 2022*

KAGGLE COMPETITION - 18'TH PLACE

- ***Whale and dolphin re-identification*** using their distinct features, such as dorsal fins. Our team managed to get 18'th place by training multiple models, combining them with MLP, and using ArcFace as a loss function. Each of the teammates had performed EDA, field exploration, and model training,

ROADHACK *November 2021*

CODENROCK HACKATON - 1'ST PLACE

- ***LIDAR semantic segmentation for road distresses***. Our team had trained segmentation models for cracks and potholes and processed point clouds in under two days delivering the desired results. I was responsible for data gathering, model training, and partially for road model estimation.

SKILLS

PROGRAMMING LANGUAGES	***Proficient:*** Python ***Familiar:*** SQL | Bash | Regexp | C++ | Haskell | Scala | Java
SOFTWARE DEVELOPMENT	Docker | Git | ClearML | WandB | CVAT | Agile
FRAMEWORKS & LIBRARIES	ffmpeg | pandas | matplotlib | fiftyone | streamlit | FastAPI | hydra
DS FRAMEWORKS	Classical CV | Pytorch | MMCV | OpenCV | Ffmpeg | ONNX | OpenVino
LANGUAGES	***Native:*** Russian ***Fluent:*** English
HOBBIES	Table Games | Smart Homes | Self-Hosting

Last updated: October 15, 2023