## VLADIMIR IASHIN

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A deep learning researcher and PhD candidate who specializes in designing neural nets for video content understanding. I have several years' experience in working with large video datasets and multiple modalities *e. g.* audio, visual, and text.

## TECHNICAL STRENGTHS

- Python, PyTorch (inc. distributed training), Git, Docker/Singularity, Slurm, AWS and Google Cloud
- Transformers, 2D/3D CNN, RNN, GAN, [VQ]VAE, Multi-modal Fusion, Video, Audio, and Language Processing

## **EDUCATION**

Tampere University 2023

D.Sc. (Ph. D.) in Computing and Electrical Engineering

National Research University Higher School of Economics

M.Sc. in Applied Mathematics and Computer Science 2018 B.Sc. in Economics (graduation rank: Top-1/100+) 2016

## SELECTED PUBLICATIONS

- [4] V. Iashin, W. Xie, E. Rahtu, A. Zisserman. Sparse in Space and Time: Audio-visual Synchronisation with Trainable Selectors. Under review, 2022.
- [3] V. Iashin, E. Rahtu. Taming Visually Guided Sound Generation. In British Machine Vision Conference (BMVC), 2021 - Oral Presentation. Project page & code: iashin.ai/SpecVQGAN
- [2] V. Iashin, E. Rahtu. A Better Use of Audio-Visual Cues: Dense Video Captioning with Bi-modal Transformer. In British Machine Vision Conference (BMVC), 2020.

  Project page, code & presentation: iashin.ai/bmt
- [1] V. Iashin, E. Rahtu. Multi-modal Dense Video Captioning. In Computer Vision and Pattern Recognition (CVPR) Workshops, 2020. Project page, code & presentation: iashin.ai/mdvc

# INDUSTRY EXPERIENCE

# Speech Technology Center

June – August, 2018

Research Intern, R&D

- Experimented with state-of-the-art CNN backbones for reverse image search in PyTorch
- Improved the performance metric in the matured project by 2%

#### SELECTED FREE-TIME PROJECTS

## Website with an Object Detector

Full-stack, PyTorch, Python, Flask, Google Cloud/AWS, HTML, CSS, Ajax

iashin.ai/detector

• An object detector as a web application. It will tell you what's on an image you uploaded

## Video Features

Video & Audio Processing, PyTorch, Python, ffmpeg, OpenCV

iashin.ai/video\_features

• Provides an easy and flexible API for feature extraction from raw videos allowing multi-GPU acceleration

# 1<sup>st</sup> Place in CORSMAL 2020: Multi-modal Fusion and Learning for Robotics

Deep Learning, Audio & Video Processing, Docker, PyTorch

github.com/v-iashin/CORSMAL

• Majorly contributed to 2/3 tasks, validation approach, organization of the code, Docker image, and tech report

# REVIEWER

AAAI (2022), CVPR (2022), ICCV (2021), CVPR Workshops (2021), TPAMI (2020)

# SUMMER SCHOOLS

PAISS by Inria & Naver Labs (2021), ISSS by Queen Mary U. of London (2020), ICVSS by U. of Catania (2019)