

Vladimir Nekrasov



A deep learning and computer vision expert focused on simplifying existing end-to-end pipelines in order to create practical solutions and applications. Extensive experience building real-time deep learning networks optimised for embedded devices.

WORK EXPERIENCE (LAST 3)

NEARMAP | SR. DATA SCIENTIST, AI TEAM

Remote, AU | Jun, 2022 - present

- Built high-quality, scalable and platform-agnostic temporal deep learning model on aerial imagery

Tools used: Python • PyTorch Lightning • Hydra • WandB • Streamlit • QGIS • S3 • Folium • torchscript

SKYDIO | SR. DEEP LEARNING RESEARCH ENGINEER, AUTONOMY TEAM Remote, AU | Aug, 2020 - Mar, 2022

- Built and established easy to use and extend end-to-end reproducible deep learning pipelines and processes
- Led and managed a team of 5 deep learning engineers

Tools used: Python • C++ • CUDA • PyTorch • WandB • Streamlit • TensorRT • Slurm • ONNX • torchscript

SKYDIO | COMP. VISION RESEARCH INTERN, AUTONOMY TEAM Redwood City, USA | Jun, 2019 - Nov, 2019

- Improved performance and runtime of the on-device obstacle avoidance system of the Skydio 2 drone

Tools used: Python • C++ • CUDA • PyTorch • TensorFlow • TensorRT • ONNX • Keras

SELECTED PUBLICATIONS

CVPR

Long Beach, USA, 2019

FAST NEURAL ARCHITECTURE SEARCH OF COMPACT SEMANTIC SEGMENTATION MODELS VIA AUX. CELLS

V. Nekrasov, H. Chen, C. Shen, and I. Reid

<https://github.com/DrSleep/nas-segm-pytorch>

ICRA

Montreal, Canada, 2019

REAL-TIME JOINT SEMANTIC SEGMENTATION AND DEPTH ESTIMATION USING ASYMMETRIC ANNOTATIONS

V. Nekrasov et al.

<https://github.com/DrSleep/multi-task-refinenet>

BMVC

Newcastle-upon-Tyne, UK, 2018

LIGHT-WEIGHT REFINE NET FOR REAL-TIME SEMANTIC SEGMENTATION

V. Nekrasov, C. Shen, and I. Reid

<https://github.com/DrSleep/light-weight-refinenet>

BMVC

York, UK, 2016

GLOBAL DECONVOLUTIONAL NETWORKS FOR SEMANTIC SEGMENTATION

V. Nekrasov, J. Ju, and J. Choi

<https://github.com/DrSleep/GDN>

EDUCATION

Ph.D. in Computer Science

Adelaide, Australia | Aug, 2017 - Nov, 2020

THE UNIVERSITY OF ADELAIDE, SCHOOL OF COMPUTER SCIENCE

Thesis: Semantic Image Segmentation and Other Dense Per-Pixel Tasks: Practical Approaches

Dean's Commendation for Thesis Excellence

Specialist D. in Mechanics

Moscow, Russia | Sep, 2010 - Jun, 2015

LOMONOSOV MOSCOW STATE UNIVERSITY, FACULTY OF MATHEMATICS AND MECHANICS

GPA: 4.6 / 5.0

Majors: Indoor Navigation, Stability & Control Theory