

# 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 4)

**HARRISON.AI** | SR. MACHINE LEARNING ENGINEER

Remote, AU | Apr, 2024 - present

- Building end-to-end health tech solutions on multi-modal health data (CT, X-Ray, text reports)

Tools used: Python • Transformers • Gradio • PyTorch • VLLM

**AIML, CAR** | GRANT-FUNDED RESEARCHER (B)

Adelaide, AU | Nov, 2023 - Apr, 2024

- Practical solutions for multi-modal generative AI (text, music, image)

Tools used: Python • Transformers • Diffusers • Gradio • MIDITok • LeoCAD

**NEARMAP** | SR. DATA SCIENTIST, AI TEAM

Remote, AU | Jun, 2022 - Apr, 2023

- 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 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

## 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

*Majors: Indoor Navigation, Stability & Control Theory*

## 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>