

# Nikita Durasov

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## EDUCATION

**École polytechnique fédérale de Lausanne (top 3% of applicants)**

PhD in Computer Sciences (Computer Vision Laboratory at EPFL)

**Lausanne, Switzerland**

September 2019 - Present

**Moscow Institute of Physics and Technology (top 5%, Honour degree)**

BS of Applied Mathematics and Physics (major: Data Analysis)

**Moscow, Russia**

September 2015 - 2019

GPA: 4.9/5, Thesis: Monocular Depth Estimation (supervisor: Konushin A.)

## RESEARCH & WORK EXPERIENCE

**Computer Vision Laboratory, EPFL**

Doctoral Assistant, Uncertainty Estimation project 📄 📄

**Lausanne, Switzerland**

September 2019 - Present

**Stack:** Python, Keras, Tensorflow, Pytorch, Docker, Kubernetes, GNNs

- developed model for fast and accurate Uncertainty Estimation prediction (w/ Neural Concept SA)
- implemented video detection / tracking + re-identification system for persons presence estimation

**Apple Development Center**

Computer Vision Engineer, Zurich Vision Lab

**Zurich, Switzerland**

May - September 2022

**Stack:** Python, Keras, Tensorflow, Pytorch, Docker, AWS, GCP, Kubernetes

- - improving robustness of modern detector models with Transformers and attention mechanisms

**Amazon Prime Air, Obstacle Detection Lab**

Applied Researcher (L5), Robust Stereo 3D Reconstructure project

**Graz, Austria**

August - December 2021

**Stack:** Python, Keras, Tensorflow, Pytorch, Docker, AWS, C++

- developing approaches for real-time 3D Stereo Reconstruction for edge applications and robotics
- improving robustness of modern neural Depth Estimation architectures through NN's uncertainty

**Samsung AI Center (Samsung R&D)**

Deep Learning Researcher, Monocular Depth Estimation (MDP) 📄

**Moscow, Russia**

June 2018 - August 2019

**Stack:** Python, Pytorch, Keras, Bash, Latex, Android, Java

- designed model for MDP that's 10x faster, more accurate and 20x less memory hungry than SOTA
- responsible for Android demos development (internal Samsung Conferences, ~ 200 participants)
- implemented Pytorch framework for fast NN's prototyping (now used by ~ 10 laboratory members)

**Yandex, Computer Vision service**

Deep Learning Researcher, Optical character recognition project 🌐

**Moscow, Russia**

February - May 2018

**Stack:** Python, Pytorch, Keras, Tensorflow, C++

- implemented EAST OCR detector with Pytorch and benchmarked performance on internal datasets
- provided end-to-end text detector/recognizer model and validated ideas for model improvements

## PUBLICATIONS

- Artem Sevastopolsky, Yury Malkov, Nikita Durasov, Luisa Verdoliva, Matthias Nießner (2022)  
*How to Boost Face Recognition with StyleGAN? (ICCV, Paris)*
- Durasov Nikita, Nik Dorndorf, Pascal Fua (2022)  
*ZigZag: Universal Sampling-free Uncertainty Estimation Through Two-Step Inference (arXiv)*
- Liu Weizhe, Durasov Nikita, Fua Pascal (2021)  
*Leveraging Self-Supervision for Cross-Domain Crowd Counting (CVPR Oral, New Orleans)*
- Durasov Nikita, Bagautdinov Timur, Baque Pierre, Fua Pascal (2020)  
*Masksembles for Uncertainty Estimation (CVPR, Nashville)*
- Durasov Nikita, Romanov Mikhail, Bubnova Valeriya, Bogomolov Pavel, Konushin Anton (2019)  
*Double Refinement Network for Efficient Indoor Monocular Depth Estimation (IEEE/RISJ IROS, Macao)*
- Ivanov Sergei, Durasov Nikita, Burnaev Evgeny (2018)  
*Learning Node Embeddings for Influence Set Completion (IEEE ICDM, Singapore)*