

Oleksii Sidorov

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WORKING EXPERIENCE

Aug 2019 – Aug 2020

AI Resident (Research Engineer)

Menlo Park, CA, USA

Facebook AI Research

S: Marcus Rohrbach. Vision and Language Team. Designing and training ML models for Image Captioning and VQA. Collection and analysis of large computer vision dataset TextCaps. https://textvqa.org/textcaps

Jan - Mar 2019

Research Intern

Oxford, United Kingdom

University of Oxford

S: Hannah Smithson. Processing and enhancement retinal data; unsupervised segmentation using GAN models; designing and conducting a psychophysical experiment with eye-tracker.

Aug 2018 – Jul 2019

Teaching Assistant – Computer Vision

Gjøvik, Norway

Research Assistant

Norwegian University of Science and Technology (NTNU)

Support of lectures and lab sessions; Assistance to students in their projects; Giving Lectures.

Jun – Aug 2018

Research Intern

Leuven, Belgium

KU Leuven

S: Johan Wagemans. Image segmentation, feature extraction, clustering, and data analysis for image memorability study. Included collaborations with A Torralba and A Oliva (MIT CSAIL), CH Demarty and QKN Duong (Technicolor Inc.), Luc Van Gool's lab (KU Leuven).

2015 - 2017

Physics and Mathematics tutor (>20 students)

Kyiv, Ukraine

EDUCATION

2017 - 2019

MS Applied Computer Science

Two-year (120 ECTS) Erasmus+ Joint Master Degree:

1st position in a group ranking, the highest score in each subject

Norwegian University of Science and Technology (NTNU)

Gjøvik, Norway

Master Applied Computer Science

Introduction to Artificial Intelligence, Video Processing, Specialization in Color Imaging, Medical Imaging

University of Lyon (UDL)

Saint-Étienne, France

Master Optics, Image, Vision, Multimedia (Applied Computer Science)

Data Analysis, Applied Color Science, Digital Image Fundamentals, Introduction to Specialization Fields and Industrial Study Cases, Applied Optics and Photonics, Introduction to MatLab, Introduction to scientific programming.

University of Granada (UGR)

Granada, Spain

Master Universitario en Ciencia y Tecnologia del Color (Computer Science)

Data Science, Computer Vision, Human Perception, Spectral Science, Advanced Applied Colorimetry, Digital Innovation and Entrepreneurship

2013 – 2017 Taras Shevchenko National University of Kyiv

Kyiv, Ukraine

Bachelor of Science in Physics (Optics, Photonics)

Basic physics: Mechanics, Optics, Electrodynamics, Quantum mechanics, Radioelectronics, Molecular physics, etc.
Basic mathematics: Mathematical analysis, Linear algebra, Analytical geometry, Differential equations, Theory of groups, Numerical methods, Theory of probability and statistics, Vector and tensor analysis, etc.
Optics & Photonics: Quantum Optics, Nonlinear Optics, Optics of anisotropic media, Quantum electronics, Technique of the optical spectroscopy, Photonics of organic media, Plasmonics, Raman spectroscopy, etc.

CERTIFICATES

July 2018

Artificial Intelligence Summer School

Udine, Italy

"From Deep Learning To Data Analytics"

July 2019

EEML Summer School by DeepMind

Bucharest, Romania

+ Award for Data Analysis and Visualization competition

AWARDS & HONORS

July 2019

2nd place in Kaggle challenge in Data Analysis organized by DeepMind (at EEML 2019).

July 2018

Best Paper Award at AI-DLDA18 summer school.

2017 – 2019 2016 – 2019 Erasmus+ scholarship funded by European Union.

2016 - 2019

Scholarships/grants by University of Groningen, Vrije Universiteit Brussel, Friedrich Schiller University Jena, Charles University, AI-DLDA summer school, EEML summer school, Norwegian University of Science and Technology.

May 2016

Grant of the Opportunity Funds program (funded by the USA Government).

2014, 2015

Increased scholarship by Ukrainian Government for excellent academic performance.

2012 - 2013

All-Ukrainian Research Paper Defense Competition among the Student-members of Minor Academy of Sciences of Ukraine; Scholarship and the Diploma of the Winner (regional stage).

2010 – 2013 (annually)

Ukrainian National Olympiad in Physics, the Diplomas of the Winner (national and regional stages).

PUBLICATIONS

Clickable! 🖔



TextCaps: a Dataset for Image Captioning with Reading Comprehension

Oleksii Sidorov, Ronghang Hu (UC Berkeley), Marcus Rohrbach (FAIR), Amanpreet Singh (FAIR)

ECCV 2020 (submitted)

Are all the frames equally important?

<u>Oleksii Sidorov</u>, Marius Pedersen, Nam Wook Kim (Harvard), Sumit Shekhar (Adobe Research) **CHI 2020, Late Breaking Works**

Generative Smoke Removal

Oleksii Sidorov, Congcong Wang (NTNU), Faouzi Alaya Cheikh (NTNU)

NeurIPS 2019 Workshops, Proceedings of Machine Learning Research (PMLR) Journal

Craquelure As a Graph: Application of Image Processing and Graph Neural Networks to the Description of Fracture Patterns

Oleksii Sidorov, Jon Yngve Hardeberg (NTNU)

ICCV 2019 Workshops

Deep Hyperspectral Prior: Denoising, Inpainting, Super-Resolution

Oleksii Sidorov, Jon Yngve Hardeberg (NTNU)

ICCV 2019 Workshops

Conditional GANs for Multi-Illuminant Color Constancy: Revolution or Yet Another Approach?

Oleksii Sidorov

CVPR Workshops, 2019, p. 0-0

Changing the Image Memorability: From Basic Photo Editing to GANs
Oleksii Sidorov

CVPR Workshops, 2019, p. 0-0

Changes in the Visual Appearance of Polychrome Wood Caused by (Accelerated) Aging
Oleksii Sidorov, Jon Hardeberg, Sony George, Joshua Harvey (Oxford), Hannah Smithson (Oxford)
Electronic Imaging 2020, Material Appearance

Overt visual attention on rendered 3D objects

Oleksii Sidorov, Joshua Harvey (Oxford), Hannah Smithson (Oxford), Jon Hardeberg (NTNU)

In submission

Artificial color constancy via GoogleNet with angular loss function
Oleksii Sidorov

International Journal of Imaging and Robotics, 19(3):1-10, 2019

Novel approach to uniformization of a color space via generic deep learning-based transformation Oleksii Sidorov

Proceedings of IEEE Colour and Visual Computing Symposium 2018 (CVCS), pp. 1-4, 2018

Bayesian optimization of artificial neural network for modelling chromaticity discrimination ellipses Oleksii Sidorov

WDS'18 Proceedings — Mathematical and Computer Modelling, pp. 62–67, 2018

Image multiplexing with laser-controlled plasmonic colors

N. Destouches, N. Sharma, <u>O. Sidorov</u>, N. Dalloz, C. Hubert, F. Vocanson, M. Hébert

META18 International Conference on Metamaterials, Photonic Crystals and Plasmonics

Spectral characteristics of silver nanoparticles in polyacrylamide matrix in the presence of berberine molecules

O. Sidorov, N. Bashmakova, N. Kutsevol, V. Chumachenko Molecular Crystals and Liquid Crystals

Spectral properties of novel fluorophores synthesized from citric acid and their solutions with DNA O.O. Sidorov, N.V. Bashmakova, V.M. Yashchuk, W. Kasprzyk, S. Bednarz, D. Bogdal WDS'16 Proceedings of Contributed Papers — Physics, 233–238, 2016

LANGUAGES

Python, SQL, MatLab, R

basic knowledge of Java, JS, C++, Tableau, Pascal, HTML, CSS, Microcontroller programming on C

English (fluent), Russian (native), Ukrainian (native)