Alexander Kolesnikov - Curriculum Vitae

CONTACT INFO

Cell: +43 (664) 88326020
E-mail: akolesnikov@ist.ac.at
Date of Birth: August 29, 1990
Languages: English(fluent), Russian (native)

EDUCATION

PhD student. September 2013 – till now.

- Research supervisor: Chrisptoph Lampert.
- Research interests: generative models, weakly-supervised learning, deep learning, graphical models.
- **IST Austria**, Vienna, Austria.

Specialist degree in applied mathematics and system programming. September 2007 – July 2012.

- **Moscow State University**, Moscow, Russia.
  The Faculty of Computational Mathematics and Cybernetics,
  Department of Mathematical Methods of Forecast.
- Thesis Topic: *Forecasting Click-Trough Rate for New Advertisements*. Research supervisor: Konstantin Vorontsov.
- Department specialization: machine learning.

Secondary education. Moscow Kolmogorov Physics and Mathematics School 18, Advanced Mathematics and Informatics class.

WORK EXPERIENCE

Software Engeneering Intern in **Google Research**. May 2017 – Aug 2017. Key Responsibilities:

- Computer vision research.

Research Developer in the Advertisement Optimization Group. **Yandex**. Jan 2011 – Sep 2013. Key Responsibilities:

- Large-scale data analysis in a distributed computational environment (`MapReduce`).
- Developing models for predicting click-through rate.

PUBLICATIONS

1. Amelie Royer*, Alexander Kolesnikov*, Christoph H. Lampert. **Probabilistic Image Colorization**. *Published at British Machine Vision Conference (BMVC), 2017*, *ArXiv* link. **equal contribution*
2. Alexander Kolesnikov, Christoph H. Lampert. **PixelCNN Models with Auxiliary Variables for Natural Image Modeling**. *Published at International Conference on Machine Learning (ICML), 2017*, *ArXiv* link.
3. Sylvestre-Alvise Rebuffi, Alexander Kolesnikov, Christoph H. Lampert. **iCaRL: Incremental Classifier and Representation Learning**. *Published at Conference on Computer Vision and Pattern Recognition (CVPR), 2017 (spotlight)*, *ArXiv* link.

4. Alexander Kolesnikov, Christoph H. Lampert. **Improving Weakly-Supervised Object Localization By Micro-Annotation**. *Published at British Machine Vision Conference (BMVC), 2016*, *ArXiv* link.
5. Alexander Kolesnikov, Christoph H. Lampert. **Seed, Expand and Constrain: Three Principles for Weakly-Supervised Image Segmentation**. *Published at European Conference on Computer Vision (ECCV), 2016*, *ArXiv* link.
6. Alexander Kolesnikov, Christoph H. Lampert. **Identifying Reliable Annotations for Large Scale Image Segmentation**. *ArXiv* link.
7. Alexander Kolesnikov, Matthieu Guillaumin, Vittorio Ferrari, Christoph H. Lampert. **Closed-Form Approximate CRF Training for Scalable Image Segmentation**, *European Conference on Computer Vision (ECCV), 2014*, *ArXiv* link.

Invited talks

- 02/2016 **Computer vision seminar**, School of Data Analysis, Moscow, Russia.
- 03/2015 **Weizmann Workshop on Computational Challenges in Large Scale Image Analysis**, Weizmann Institute, Rehovot, Israel.

Summer schools

- 09/2015 **Gaussian Process Summer School**, Sheffield, UK.
- 05/2014 **Machine Learning Summer School**, Reykjavík, Iceland.

Technical Skills

Primary skills, used in research on regular basis

- **Programming languages**: Python, C\C++.
- **Deep learning frameworks**: `tensorflow`, `theano` and `caffe`.
- **Operating systems**: `Linux` (`Ubuntu`).
- Misc: TEX, `gurobi`, `CPLEX`.