

Alexander Kolesnikov

Machine Learning and Computer Vision Researcher

Education

- 2013-09–till now **PhD candidate**, *Institute of Science and Technology*, Austria.
- **Research Focus:** Weakly-supervised Image Segmentation and Generative Models
 - **Supervisor:** Christoph H. Lampert
- 09-2007 – 06-2012 **Master's degree**, *Lomonosov Moscow State University*, Russia.
- **Main field of study:** Applied Mathematics and Computer Science
 - **Specialization:** Mathematical models of complex systems
 - **Master's thesis topic:** Forecasting Click-Trough Rate for New Advertisements

Work Experience

- 05-2017 – 09-2017 **Software Engineering Intern**, *Google Switzerland*.
- Key Responsibilities:**
- Computer Vision Research
- 10-2011 – 09-2013 **Software Engineer in Research**, *Yandex*.
- Key Responsibilities:**
- Large-scale data analysis in a distributed computational environment
 - Developing models for predicting click-through rate for contextual advertisement
- 01-2011 – 10-2011 **Software Engineering Intern**, *Yandex*.
- Key Responsibilities:**
- Developing experimental search engine

Publications

1. Amelie Royer*, **Alexander Kolesnikov***, Christoph H. Lampert, **Probabilistic Image Colorization**. *Published at British Machine Vision Conference (BMVC), 2017. *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.*
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.*
4. **Alexander Kolesnikov**, Christoph H. Lampert, **Improving Weakly-Supervised Object Localization By Micro-Annotation**. *Published at British Machine Vision Conference (BMVC), 2016.*

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.*
6. **Alexander Kolesnikov**, Christoph H. Lampert, **Identifying Reliable Annotations for Large Scale Image Segmentation**. ArXiv preprint, 2016.
7. **Alexander Kolesnikov**, Christoph H. Lampert, **Closed-Form Approximate CRF Training for Scalable Image Segmentation**. *Published at European Conference on Computer Vision (ECCV), 2014.*

Teaching

- 11-2017 – 01-2018 Teaching assistant, "Deep Learning with Tensorflow" course, IST Austria
 02-2015 – 03-2015 Teaching assistant, "Machine Learning and Applications" course, IST Austria

Invited Talks

- 02-2016 **Computer vision seminar**, Yandex School of Data Analysis, Moscow, Russia
 Talk title: *Three principles for weakly-supervised image segmentation*
- 03-2015 **Weizmann Workshop on Computational Challenges in Large Scale Image Analysis**, Weizmann Institute, Rehovot, Israel
 Talk title: *Identifying Reliable Annotations for Large Scale Image Segmentation*

Primary Technical skills

Programming Languages	Python, C/C++	Scientific Libraries	numpy, scipy, tensorflow, theano, caffe, gurobi, cplex
Operating Systems	Linux, MacOS	Misc	bash, latex, SQL

Languages

English	Fluent
Russian	Native
German	Beginner

Hobbies

Tennis, Snowboarding, Bouldering, Badminton, Squash