

Evgeny Krivosheev

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Post-Doctoral researcher in Deep Learning and hybrid Human-AI systems aspiring to build a career in the Technology sector with a focus on applied AI and data-driven solutions.

RELEVANT SKILLS

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|---------------------------|------------------------|---------------------------------|
| -Machine/Deep Learning | -Domain Adaptation | - Data Fusion and Crowdsourcing |
| -Self-Supervised Learning | -Graph Neural Networks | - Natural Language Processing |

Languages/Tools

Python, PyTorch, Sklearn, Pandas, Matplotlib, Notebook, NLTK, Docker, Google Cloud, Git, Django.

WORK EXPERIENCE

University of Trento, Multimedia group (Trento, Italy)

June 2020 - present (1 year)

Post-Doc in Computer Vision

- Developed a deep learning framework for Unsupervised Domain Adaptation pivoted around Graph Neural Aggregation, GANs, and Curriculum learning (accepted at CVPR 2021, see [project page](#)).
- Implemented several Self-Supervised visual models (SimCLR, Moco, Byol, Deep Cluster), enhanced the networks with Ensemble training and customised data augmentation (based on MixUp, CutMix).
- Supervised students in technical and methodological aspects in research projects.

IBM Research (Zurich, Switzerland)

2019 (6 months)

Deep Learning intern

- Invented and programmed Self-Supervised Graph Neural architecture for linking business entities from text to relational database (Dun & Bradstreet) resulted in +7% linkage improvement for Swiss companies with respect to current IBM linkage system.
- Deployed the neural linkage model as RESTful service with Flask, Docker, and Kubernetes.
- Demonstrated the graph linkage system at AAAI 2021 conference, see [demonstration](#).

IBM Benelux & TU Delft (Amsterdam, Netherlands)

2018 (3 months)

Research Intern

- Developed Active Learning and Adaptive Human-ML classification algorithms for balancing between training ML models and acquiring reliable training data.
- Reduced document classification cost by 10% while improved accuracy by 5% over several classification tasks with respect to state-of-the-art approaches (resulted in two NeurIPS workshop papers).

Pi School (Rome, Italy)

2017 (2 months)

Deep Learning intern

- Engineered LSTM-based model for memopal.com backup company to detect Ransomware viruses via analysis of user logs in operating system resulted in 85% precision of the prototype model.

Purdue University (West Lafayette, IN, USA)

2016 (4 months)

Data Fusion Intern

- Designed a Probabilistic Graphical Model for aggregating data from multiple sources of information.
- Derived and implemented the fusion inference procedure based on Markov Chain Monte Carlo sampling and Expectation-Maximisation methods (published at VLDB conference).

iTechArt (Minsk, Belarus)

2015 (6 months)

Python Software Engineer

- Developed RESTful endpoints and features in admin interface for classpass.com company (Django, JS).
 - Troubleshooted backend, database problems that speeded up several SQL queries and email services.
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EDUCATION

University of Trento (Trento, Italy)

2016 - 2020

PhD in Informatics (Cum Laude), advisor Prof. Fabio Casati

- Developed a number of cost-aware crowdsourcing, active learning and hybrid crowd-machine learning algorithms for item classification and low-risk decisions.
- Main author of 9 papers published on top-tier conferences (WWW, AAAI, NeurIPS, VLDB, HCOMP, CSCW).
- Indirectly supervised students and interns in research projects.

Belarusian State University (Minsk, Belarus)

2016 - 2020

Specialist in Information Systems and Radiophysics (GPA 8.6 out of 10 max)

PROFESSIONAL ACTIVITIES

PC member at NurIPS 2020 workshop, poster session chair at ICPR 2020, reviewer at WSDM 2020, WWW 2018, WWW 2017, ICWE 2017, BPM 2017.

SELECTED PUBLICATIONS

Curriculum Graph Co-Teaching for Multi-Target Domain Adaptation **CVPR 2021**, Subhankar Roy*, Evgeny Krivosheev*, Zhun Zhong, Nicu Sebe, Elisa Ricci, * - equal contribution.

Business Entity Matching with Siamese Graph Convolutional Networks **AAAI 2021**.

Evgeny Krivosheev, Mattia Atzeni, Katsiaryna Mirylenka, Paolo Scotton, Christoph Miksovic, Anton Zorin.

Spatial Graph Convolutional Network for Pose-Guided Person Image Generation, **ICCV 2021**(under review), Jichao Zhang, Hao Tang, Jingjing Chen, Nicu Sebe, Evgeny Krivosheev, Mengyi Zhao.

Active Hybrid Classification, **NeurIPS 2020** workshop, Evgeny Krivosheev, Fabio Casati, Alessandro Bozzon

Crowd-based Multi-Predicate Screening of Papers in Literature Reviews, **WWW 2018**, Evgeny Krivosheev, Fabio Casati, Boualem Benatallah.

LANGUAGES

English (Fluent), Russian (Native)

REFERENCES

Prof. Dr. Nicu Sebe, Head of Dept. of Information Engineering and Computer Science, Huawei Research Ireland, email: niculae.sebe@unitn.it

Dr. Abdel Labbi, Department Manager Cognitive Computing & Industry Solutions, IBM Research Zurich, Switzerland, email: abl@zurich.ibm.com

Dr. Paolo Scotton, Team Lead & Research Staff Member, IBM Research Zurich, Switzerland, email: psc@zurich.ibm.com

Prof. Dr. Fabio Casati, Principal Machine Learning Engineer, ServiceNow, USA, and University of Trento, email: fabio.casati@servicenow.com

Prof. Dr. Alessandro Bozzon, Department of Electrical Engineering, Mathematics and Computer Science, Delft University of Technology, Netherlands, email: a.bozzon@tudelft.nl
