

Evgeny Krivosheev

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[Google Scholar](#)

[GitHub](#)

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Deep Learning Engineer with 7+ years of Industrial and Research experience aspiring to build a career in the technology sector with a focus on AI, applied research, and data-driven solutions.

Relevant skills: Natural Language Processing (NLP), Computer Vision, Graph Neural Networks, Self-Supervised Learning, Domain Adaptation, Data Fusion and Crowdsourcing.

WORK EXPERIENCE

[Jumio Corporation \(Italy, Remote\)](#)

2021 - present

AI Engineer in Document Verification Team

- Developed Transformer Data Extraction models for processing PII documents, such as Bank Statements. Reduced reliance on human workforce by automating 45% of French, German, Italian documents, surpassing target KPIs.
- Developed AI-based document classification model taking ownership for the entire feature life-cycle. Increased Document Verification Accuracy by +10% and reduced high-severity errors for customers.
- Designed Automated Testing solution for ML services, enabling continuous integration of model updates and code changes at Pull Requests, leveraging tools such as Airflow, Jenkins, Docker, AWS SageMaker.
- Working closely with cross-functional teams including Backend, Product, ML, QA, Operations to successfully deliver the product to end users.
- Providing guidance and mentorship to Python and Machine Learning engineers.

[University of Trento, Multimedia group \(Trento, Italy\)](#)

2020 - 2021 (1.5 years)

Post-Doc in Computer Vision, Graph Learning

- Developed a deep learning framework for Unsupervised Domain Adaptation pivoted around Graph Neural Aggregation, GANs, and Curriculum learning, achieving +5% improvement in accuracy with respect to the state-of-the-art algorithm (accepted at CVPR 2021, see [project page](#)).
- Implemented several Self-Supervised visual models (SimCLR, Moco, Byol, Deep Cluster), customised Byol with Ensemble training and Data augmentations (MixUp, CutMix), improving the accuracy by 2%.
- Co-supervised PhD students in technical and methodological aspects throughout research projects.

[IBM Research \(Zurich, Switzerland\)](#)

2019

R&D Intern in AI Graph Learning, NLP

- Invented and programmed Self-Supervised Graph Convolutional Net for linking business entities from text to relational database (Dun & Bradstreet) resulting in +7% linkage improvement for Swiss business entities with respect to the current IBM linkage system (accepted as AAAI 2021 paper).
- Deployed the Graph Convolutional Net as a web service with PyTorch, Flask, Docker (see [demo](#)).

[University of Trento \(Trento, Italy\)](#)

2016-2020 (4 years)

PhD in Human-AI, NLP (Cum Laude)

- Developed a number of cost-aware Machine Learning, Active Learning and Hybrid crowd-machine learning algorithms for document classification for low-risk decision making.
- Main author of 9 papers published on top-tier conferences (WWW, AAAI, NeurIPS, VLDB, HCOMP).
- Co-supervised students and interns in research projects.

[IBM Benelux & TU Delft \(Amsterdam, Netherlands\)](#)

2018

Machine Learning 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 (two NeurIPS publications).
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Data Fusion Intern

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

iTechArt (Minsk, Belarus)

2015

Python Software Engineer

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

EDUCATION**University of Trento (Trento, Italy)**

2016 - 2020

PhD (Cum Laude), advisor Prof. Fabio Casati

Machine Learning, Hybrid crowd-machine algorithms for document classification.

Belarusian State University (Minsk, Belarus)

2011 - 2016

Specialist in Information Systems and Radiophysics (equivalent to Master degree)

PROFESSIONAL ACTIVITIES

Program committee member at NurIPS 2020 workshop, poster session chair at ICPR 2020, invited speaker at PiSchool 2020, reviewer at WSDM 2020, WWW 2018, WWW 2017, ICWE 2017, BPM 2017.

SELECTED PUBLICATIONS

GIPSO: Geometrically Informed Propagation for Online Adaptation in 3D LiDAR Segmentation **ECCV 2022**, Cristiano Saltori, Evgeny Krivosheev, Stéphane Lathuilière, Nicu Sebe, Fabio Galasso, Giuseppe Fiameni, Elisa Ricci, Fabio Poies.

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.

A review and experimental analysis of active learning over crowdsourced data, **Artificial Intelligence Review 2021 (Journal)**, Burcu Sayin, Evgeny Krivosheev, Jie Yang, Andrea Passerini, Fabio Casati.

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)

HONORS:

- The 1st place in the regional Gomel Olympiad in Astronomy.
- Won GoBoiler Research Scholarship, Purdue University, USA.
- Won a University grant and founded the "Mutual assistance" project. For several years, I was leading my team of 10 senior students. We have been organising workshops and lectures on mathematical disciplines for Physics, Biology, and Humanities departments.
- Won PhD Scholarship, the University of Trento, Italy, 2016 - 2020.ology, and Humanities departments.

DOCUMENTS: Italian/EU Permanent Work Permit
