Dan Andrei Iliescu

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EDUCATION

University of Cambridge, UK   Oct 2019 - Jan 2023
PhD Machine Learning and Data Science

:: Full scholarship from the *Alan Turing Institute*, UK's national AI research institute.

:: Developing *deep generative models* for *disentanglement* and *missing data imputation* (images, time-series).

University of Cambridge, UK   Oct 2018 - Jul 2019
MPhil Advanced Computer Science

:: Starred distinction (+80%) in *"Machine Learning"* and *"Natural Language Processing"* courses.

:: Dissertation on missing value imputation with *Variational Autoencoders*.

University of Manchester, UK   Sep 2015 - Jul 2018
BSc (Hons) Computer Science, *First-Class (1:1)*

:: Dissertation on visualizing the internal layers of *Generative Adversarial Networks*.

EXPERIENCE

University of Cambridge, UK   Oct 2019 - Current
Teaching Assistant, *Department of Computer Science*

:: Teaching *"Data Science"*, *"Machine Learning and Bayesian Inference"* and *"Information Theory"* courses.

Yokai.ai, Paris, France   May 2021 - Oct 2021
Part-time Research Consultant

:: Studied, implemented and evaluated deep learning methods for assessing the quality of human face images.

University of Manchester, UK   Jun 2018 - Sep 2018
Research Assistant, *Machine Learning Group*

:: Co-authored a paper on the trade-off between independence and specialization in *Neural Network Ensembles*.

ARM Ltd, Manchester, UK   Jun 2017 - Sep 2017
Software Engineering Intern, *High-Performance Computing Group*

:: Co-authored a whitepaper on optimizing ML operations for vectorized CPUs.

PUBLICATIONS

Training a Task-Specific Image Reconstruction Loss   2022
A. Mustafa, A. Mikhailiuk, *D.A. Iliescu*, V. Babbar, R.K. Mantiuk   *WACV*

:: Topics: *computer vision, image reconstruction, deep learning, perceptual loss function*

Disentangling Domain and Content   2020
D.A. Iliescu, A. Mikhailiuk, D.J. Wischik, R.K. Mantiuk   *Preprint*

:: Topics: *variational autoencoder, disentanglement, unsupervised domain adaptation*

To Ensemble or Not Ensemble: When Does End-to-End Training Fail?   2020
A. Webb, C. Reynolds, *D.A. Iliescu*, W. Chen, H. Reeve, M. Lujan, G. Brown   *ECML-PKDD*

:: Topics: *ensemble neural networks, deep learning, generalized linear models*

Arm Scalable Vector Extensions and Application to Machine Learning   2018
D.A. Iliescu, F. Petrogalli   *ARM Ltd*

:: Topics: *machine learning, matrix algebra, vectorized architectures*

SELECTED PROJECTS

AI Mosaic, Award at *St Edmund's College, Cambridge* Art Contest   2021
Python algorithm for assembling images using patches from other images.   ⭘/ai-painting

Computer Laboratory ML Reading Group, University of Cambridge, UK   2019 - 2020
Organized weekly ML paper presentations for PhD students in the Computer Lab.

Visualizing GAN Layers, Undergraduate Thesis   2018
Plotting MNIST class information within GAN layers.   ⭘/visualizing-GAN-layers

PROGRAMMING TOOLS

ML and Data Science: Pytorch, Tensorflow, Scipy, Sklearn, Pandas, Plotly.

Development: Git, Docker, Bash, Poetry, DVC.