

# DAN ANDREI ILIESCU

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## Education

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- Oct — June  
2019 2024 **University of Cambridge, UK**  
PhD in Machine Learning, supervised by Dr Damon Wischik  
- Full scholarship from the Alan Turing Institute, the UK's national data science institute.  
- Developing AI models that learn causal representations of the world.  
Causal Inference Latent Variables VAEs Generative Models Variational Inference
- Oct — July  
2018 2019 **University of Cambridge, UK**  
MPhil in Advanced Computer Science, supervised by Dr Rafal Mantiuk  
- Starred distinction (top 10%) in "Machine Learning" and "Language Modelling" courses.  
- Developing AI models for dealing with confounding in high-dimensional data.  
Transformers Missing Data Imputation Probabilistic Modelling
- Sept — July  
2015 2018 **University of Manchester, UK**  
BSc (Hons) in Computer Science, **UK First Class (1:1)**, supervised by Prof Gavin Brown  
- Dissertation on visualising the learned concepts of Generative Adversarial Networks.  
Machine Learning GANs Convex Optimisation

## Work Experience

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- Aug — May  
2023 2024 **Schonfeld Strategic Advisors, London, UK**  
Quantitative Researcher  
- Developing Machine Learning models for stock price prediction.  
Linear Models Autoregressive Models Time Series Large Language Models
- June — Feb  
2022 2023 **Papercup Technologies Ltd, London, UK**  
Machine Learning Scientist Intern  
- Authored a research paper on text-to-speech deep generative models.  
Text-to-Speech Synthesis Transformers Missing Data WaveNet
- Oct — June  
2019 2022 **University of Cambridge, UK**  
Teaching Assistant  
- Supervising "Data Science", "Machine Learning", and "Information Theory" courses.  
Linear Models Gaussian Process MCMC TimeSeries Probabilities
- May — Oct  
2021 2021 **Yokai.ai, Paris, France**  
Research Consultant  
- Developed deep learning models for automatically assessing image quality.  
Computer Vision Image Quality Assessment Image Synthesis
- June — Sept  
2018 2018 **University of Manchester, UK**  
Research Assistant Intern  
- Co-authored a research paper on specialisation in neural network ensembles.  
Deep Network Ensembles Probabilistic Machine Learning Loss Functions

June — Sept 2017 2017 **ARM Ltd**, Manchester, UK  
Software Engineering Intern

- Co-authored a whitepaper on optimising ML operations for novel CPU architectures.

C++ Linear Algebra Compilers

## Selected Projects

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2021 **AI Mosaic**, Award at St Edmund's College, Cambridge Art Contest  
Python algorithm for assembling images using patches from other images.  
- Website: [/ai-painting](#)

Digital Art Internal Learning Image Synthesis

2020 **Machine Learning Reading Club**, Computer Laboratory, Cambridge  
Organized weekly ML paper presentations for PhD students in the Computer Lab.  
- Website: [/readingclub](#)

Presentations Machine Learning

2018 **Visualising GAN Layers**, Undergraduate Thesis  
Interpreting the concepts learned by Generative Adversarial Networks.  
- Website: [/visualizing-GAN-layers](#)

GANs Interpretable Deep Learning Dimensionality Reduction

## Publications

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1. **Dan Andrei Iliescu**, Damon J. Wischik. [Style-Content Disentanglement Under Conditional Shift](#). In Proceedings of the Data-Centric Machine Learning Research workshop (DMLR) at ICLR, 2024.
2. **Dan Andrei Iliescu**, Devang Mohan, Tian Huey Teh, and Zack Hodari. [Controllable Prosody Generation With Partial Inputs](#). In Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2024.
3. Aamir Mustafa, Aliaksei Mikhailiuk, **Dan Andrei Iliescu**, Varun Babbar, and Rafał K. Mantiuk. [Training a task-specific image reconstruction loss](#). In Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), 2022.
4. **Dan Andrei Iliescu**, Aliaksei Mikhailiuk, Damon Wischik, and Rafał Mantiuk. [Disentangling Domain and Content](#). Arxiv Preprint, 2022.
5. Andrew Webb, Charles Reynolds, Wenlin Chen, Henry Reeve, **Dan Andrei Iliescu**, Mikel Lujan, and Gavin Brown. [To ensemble or not ensemble: When does end-to-end training fail?](#) In Machine Learning and Knowledge Discovery in Databases: European Conference (ECML PKDD), 2020.
6. **Dan Andrei Iliescu**, and Francesco Petrogalli. [Arm scalable vector extension and application to machine learning](#). ARM Whitepaper, 2018.

## Skills

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**Programming Languages:**

Python SQL C++ Java

**Python Packages:**

Pytorch Tensorflow Scipy Scikit-Learn Pandas Matplotlib

**Development Tools:**

Vscode Git Docker Bash Poetry Pipenv DVC