Cian Eastwood

London, United Kingdom

✉ cian.eastwood@gmail.com | 🏠 Personal website | 🐙 Github | 🔗 LinkedIn | 🎓 Google scholar

Education _____

PhD Candidate in Machine Learning
Sept 2018 - Current

University of Edinburgh & Max Planck Institute for Intelligent Systems, Tübingen
UK & Germany

- Supervisors: Prof. Chris Williams and Prof. Bernhard Schölkopf.
- Thesis: "Shift happens: How can we best prepare machine learning systems?"
- Research: Representation learning, out-of-distribution generalization, causality, disentanglement and domain adaptation.
- Awards: Enlightenment Scholarship, NUI Travelling Doctoral Studentship.

MSc in Artificial Intelligence – Distinction (84%)
Sept 2016 - Sept 2017

University of Edinburgh
UK

- Thesis: "Experiments with information-maximising generative adversarial networks"
- Courses: Various courses in AI, e.g. probabilistic modelling and reasoning, pattern recognition and natural language processing.
- Awards: **Best Thesis**, The Informatics Scholarship, UK/EU Masters Scholarship.

Exchange Program
Aug 2014 - Dec 2014

University of Toronto
Canada

- Courses: Programming languages, computer networks, compilers, and formal methods of software design.

BSc in Computer Science – First-Class Honours (88%)
Sept 2012 - June 2016

National University of Ireland (NUI), Maynooth
Ireland

- Thesis: Minimising Volatility, Maximising Diversification.
- Courses: Broad range of courses in computer science and mathematics.
- Awards: Intel Medal—**graduated top of class**, STEM Scholarship, Entrance Scholarship.

Professional Experience _____

Research Scientist Intern (Causal Inference)
Jun 2023 - Aug 2023

Spotify
London, UK

- Leading a project on learning causal representations of high-dimensional treatments.

Research Intern (AI)
Aug 2022 - March 2023

Meta
New York, USA

- Led a project on causality-inspired contrastive learning.

Research Assistant
Nov 2017 - Sept 2018

University of Edinburgh
Edinburgh, UK

- Developed deep generative models for human motion synthesis. Collaborative research environment.

Tutor
Sept 2018 - Jan 2022

University of Edinburgh
Edinburgh, UK

- Delivered 10-to-15-student tutorials for Machine Learning & Pattern Recognition and Introduction to Machine Learning.

Intern Analyst
Feb 2015 - Aug 2015

Accenture
Dublin, Ireland

- Large-scale professional software development within an agile team. Developed features that affect millions annually.

Publications _____

[1] "Spuriousity Didn't Kill the Classifier: Using Invariant Predictions to Harness Spurious Features"
C Eastwood*, S Singh*, A Nicolicioiu, M Vlastelica, J von Kügelgen, B Schölkopf
Preprint, 2023

[2] "DCI-ES: An Extended Disentanglement Framework with Connections to Identifiability"
C Eastwood*, A Nicolicioiu*, J von Kügelgen*, A Kekić, F Träuble, A Dittadi, B Schölkopf
11th International Conference on Learning Representations (ICLR 2023)

[3] "Probable Domain Generalization via Quantile Risk Minimization"
C Eastwood*, A Robey*, S Singh, J von Kügelgen, H Hassani, G J Pappas, B Schölkopf
36th Conference on Neural Information Processing Systems (NeurIPS 2022)

[4] "Align-Deform-Subtract: An Interventional Framework for Explaining Object Differences"
C Eastwood*, N Li*, C K I Williams
Workshop on Objects, Structure and Causality Workshop at ICLR 2022

[5] "On the DCI Framework for Evaluating Disentangled Representations: Extensions and Connections to Identifiability"
C Eastwood*, A Nicolicioiu*, J von Kügelgen*, A Kekić, F Träuble, A Dittadi, B Schölkopf
Workshop on Causal Representation Learning at UAI 2022

[6] "Source-Free Adaptation to Measurement Shift via Bottom-Up Feature Restoration"
C Eastwood*, I Mason*, C K I Williams, B Schölkopf
*10th International Conference on Learning Representations (ICLR 2022, **Spotlight**)*

[7] "Unit-Level Surprise in Neural Networks"
C Eastwood*, I Mason*, C K I Williams
*Workshop on "I Can't Believe it's Not Better" at NeurIPS 2021 (**Spotlight**, **Didactic Award**) and PMLR 163:33-40*

[8] "Learning Object-Centric Representations of Multi-Object Scenes from Multiple Views"
N Li*, **C Eastwood***, R Fisher
*34th Conference on Neural Information Processing Systems (NeurIPS 2020, **Spotlight**)*

[9] "A Framework for the Quantitative Evaluation of Disentangled Representations"
C Eastwood*, C K I Williams
6th International Conference on Learning Representations (ICLR 2018)

Awards

2022	NeurIPS Top Reviewer
2022	ICLR Highlighted Reviewer
2019	NUI Travelling Doctoral Studentship in Artificial Intelligence
2018	University of Edinburgh Enlightenment PhD Scholarship
2017	Informatics Dissertation Prize (Award for best thesis in the MSc Artificial Intelligence)
2016	Informatics Masters Scholarship
2016	UK/EU Masters Scholarship
2016	The Intel Medal (Award for best results in the BSc Computer Science)
2012	NUI Undergraduate STEM Scholarship
2012	NUI Undergraduate Entrance Scholarship
2012	600 points in The Leaving Certificate (Final secondary-school exams, 99.7th percentile nationally)

Invited Talks

[A] "Distribution shift and causal/disentangled representations"
Computational Intelligence, Vision, and Robotics Lab, New York University, December 2022

[B] "Probable domain generalization via quantile risk minimization"
Copenhagen Causality Lab, University of Copenhagen, November 2022 (virtual)

[C] "Shift happens: How can we best prepare?"
(Neuro)Science of Deep Learning Group, Massachusetts Institute of Technology, November 2022 (virtual)

[D] "Tackling distribution shift and out-of-disitribution generalization"
Seminar on Out-of-Distribution Generalization, Saarland University, November 2022 (virtual)

Reviewing

2023   ICLR, ICML
2022   ICLR, NeurIPS
2021   NeurIPS

Skills

Programming	Python (PyTorch, Pandas, NumPy, Scikit-learn. etc.)
Miscellaneous	Linux, Shell (Bash/Zsh), LaTeX, Git, Microsoft Office

References available upon request.