

John Mitros

Curriculum Vitae

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Research Interests

Fields Robust Machine Learning, Statistics, Optimisation, Out-of-Distribution Generalisation, Anomaly Detection, Bayesian Inference, Decision Theory, Uncertainty Quantification

Education

2017–2022 **PhD, Computer Science**
University College Dublin, Ireland

2013–2014 **MSc, Computer Science**
Aristotle University, Greece

Experience

2016–2017 **Research Assistant**, *University College Cork*, Ireland
Activities: Investigating robust machine learning estimators and methods to defend against adversarial examples.

2015–2016 **Lecturer**, *Griffith College Cork*, Ireland
Activities: Teaching course on design and analysis of algorithms for computer scientists.

2014–2015 **Research Assistant**, *University of Trento*, Italy
Activities: Investigating machine learning estimators for medical image analysis and diagnosis, automated deployment and analysis of medical imaging.

2012–2013 **Developer**, *MyCompany*, Greece
Activities: Design, development and maintenance of web applications including websites, web portals, e-shops and online sms campaigns

2011–2012 **Developer**, *EpsilonNet*, Greece
Activities: Troubleshooting issues in SQL databases, automating activities using T-SQL scripting, and producing system load reports of malfunctioning and usage statistics.

2010–2011 **Developer**, *Heletel Ltd*, Greece
Activities: Identify customers needs, design, development and maintenance of web applications including websites, web portals, e-shops including server administrator duties.

Academic Service

Reviewer ECML, AAAI, AICS, ICDM, ICMI, ICMR, BMVC

Skills

OS Linux, Mac, Windows

Compiled C/C++, Java

Scripting Shell, Python

DeepLearning Pytorch, Keras, Tensorflow

Scientific MATLAB, SPSS, L^AT_EX

Web Design HTML, CSS, JavaScript, PHP
RDBMS MySQL, PostgreSQL
IDE Emacs, Vim, VS Code, Eclipse

Open Source

GitHub github.com/kirk86
MATLAB matlabcentral/fileexchange/authors/352200

Publications

Refereed Articles

John Mitros and Brian Mac Namee. On the importance of regularisation and auxiliary information in ood detection. In *International Conference of Neural Information Processing, (ICONIP)*, 2021.

John Mitros, Arjun Pakrashi, and Brian Mac Namee. Ramifications of approximate posterior inference for bayesian deep learning in adversarial and out-of-distribution settings. In *Proceedings of Computer Vision - (ECCV) Workshops*, volume 12535 of *LNCS*, pages 71–87. Springer, 2020.

John Mitros, Arjun Pakrashi, and Brian Mac Namee. A comparison of bayesian deep learning for out of distribution detection and uncertainty estimation. In *Proceedings of the 37th International Conference of Machine Learning - (ICML) Workshops*, volume 119, 2020.

John Mitros and Brian Mac Namee. On the validity of bayesian neural networks for uncertainty estimation. In *Proceedings of the 27th Irish Conference on Artificial Intelligence and Cognitive Science - (AICS)*, volume 2563 of *CEUR Workshop Proceedings*, pages 140–151, 2019.

John Mitros and Brian Mac Namee. A categorisation of post-hoc explanations for predictive models. In *Association for the Advancement of Artificial Intelligence - (AAAI) Spring Symposia on Story-Enabled Intelligence*, 2019.

John Mitros, Derek Bridge, and Steven Prestwich. Denoising dictionary learning against perturbations. In *Proceedings of the 32nd Association for the Advancement of Artificial Intelligence - (AAAI) Workshops*, 2018.

Preprints

John Mitros. *Content-based image retrieval tutorial*, 2016. [arXiv:1608.03811](https://arxiv.org/abs/1608.03811).