John Mitros

Curriculum Vitae

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🖝 *jmitros.github.io*

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
Acivities: 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

Teaching

Lecturer Design and Analysis of Algorithms
TA Machine Learning
TA Deep Learning

Skills

OS	Linux, Mac, Windows
Compiled	C/C++, Java
Scripting	Shell, Python
DeepLearning	Pytorch, Keras, Tensorflow
Scientific	MATLAB, SPSS, LaTeX
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.