MACIEJ MISIURA

About

PhD educated Data Scientist with an expertise in statistics and machine learning

💼 WORK EXPERIENCE

2021
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Present

Data Scientist

National Innovation Centre for Data   📍 Newcastle upon Tyne, UK

- Led and worked on teams tasked with developing data science solutions including:

  - classification model, which can be run end-to-end to rank prospective customers of a leading business offering services to estate agents
  - interpretable tree-ensemble and uplift models to understand customer churn and improve retention rate for a large software company
  - recommendation system to facilitate onboarding of new customers of a large software company

- Produced written reports summarising research projects conducted for The Alan Turing Institute on:

  - evaluating the performance of different uncertainty quantification methods with a BERT language model
  - comparing the uncertainty-unaware low shot learning models to their uncertainty-aware, Bayesian counterparts
  - identifying the state-of-the-art approaches to key word identification in video footage

- Created and delivered teaching content to clients on:

  - classification on imbalanced data
  - interpretable machine learning
  - causal inference in machine learning

2018
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2019

Data Scientist Placement

Newcastle University   📍 Newcastle upon Tyne, UK

- Contracted to undertake an investigation into quantifying environmental impacts of the UK commercial pig production systems over the last two decades
- Displayed strong analytical skills through the visualisation and interpretation of complex, commercial data
- Delivered a 10,000-word written report outlining the main findings to the Agriculture and Horticulture Development Board, which is expected to inform future government policy on identifying effective strategies to minimise environmental impacts of raising livestock animals

CONTACT INFO

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in LinkedIn

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INTERESTS

Bayesian Inference

Interpretable Machine Learning

Quantification of Uncertainty for Deep Learning Models

Data Science Process Frameworks

SOFTWARE

R | ® (Tidyverse, Tidymodels, jags, Stan)

Python | 🐍 (NumPy, SciPy, pandas, scikit-learn, PyTorch,Tensorflow)

SQL | 🗄

GitHub | ⭕

Markdown |

Databricks |

2015
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2016

Indirect Tax Analyst

Deloitte   ● Newcastle upon Tyne, UK

- Delivered tailored-made tax advice to clients from a variety of sectors including education, automotive, engineering and charity
- Improved technical writing skills by drafting engagement letters and client reports
- Performed VAT costs and savings reviews
- Demonstrated strong independent research skills and initiative by creating a large database of North East-based companies, which was utilised across regional offices for business development and client targeting
- Developed an eye for detail during monthly case law presentations

🎓 EDUCATION

2016
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2021

PhD Applied Mathematics and Statistics

Newcastle University   ● Newcastle upon Tyne, UK

Thesis: *Mathematical and statistical modelling for a more efficient and sustainable pig production*

- Investigated ways of improving environmental sustainability of commercial pig production systems through an interdisciplinary approach encompassing computational biology, precision agriculture, nutrtion, data analytics, systematic reviews and meta-analyses
- Presented research on smart agriculture at large international conferences, including talks at EAAP and ASAS
- Authored 6 scientific articles, including 4 first author papers
- Awarded the 2018 BSAS Murray Black Award (£1,500) for an outstanding research proposal

2011
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2015

Maths and Statistics MMathStat, 2:1

Newcastle University   ● Newcastle upon Tyne, UK

Thesis: *Bayesian Analysis of Paired Comparison Data*

- Delivered a 5,000 word dissertation describing predictive models of basketball matches
- Displayed strong analytical skills through extension applicaton of quantative approaches to a variety of complex problems, including analysis of healthcare data

📄 SELECTED PUBLICATIONS

2021

Bayesian comparison of models for precision feeding and management in growing-finishing pigs
Biosystems Engineering, 211, 205-218.
Misiura, M. M., Filipe, J., Brossard, L., & Kyriazakis, I.

2021 — **A Novel Estimation of Unobserved Pig Growth Traits for the Purposes of Precision Feeding Methods.**
Frontiers in Veterinary Science, 796.
Misiura, M. M., Filipe, J., & Kyriazakis, I.

2020 — **How do pigs deal with dietary phosphorus deficiency?**
British Journal of Nutrition, 124(3), 256-272.
Misiura, M. M., Filipe, J., Walk, C. L., & Kyriazakis, I.

2018 — **Do not neglect calcium: a systematic review and meta-analysis (meta-regression) of its digestibility and utilisation in growing and finishing pigs**
British Journal of Nutrition, 119(11), 1207-1219.
Misiura, M. M., Filipe, J., Walk, C. L., & Kyriazakis, I.