Philip Weber BSc, MSc, PhD, FHEA

Contact

62 Baldwin Road, Kidderminster, Worcestershire, DY10 2UA

Tel	(mobile)	on request	(home)	on request
E-mail	(personal)	dr.philip.weber@ieee.org	(work)	p.weber1@aston.ac.uk

Profile

Philip Weber is a lecturer in computer science. His research specialises in forensic voice comparison, natural language processing, machine learning and data analytics. He is a member of the Forensic Data Science Laboratory, part of Aston Institute for Forensic Linguistics (AIFL), and Aston Centre for AI Research and Application (ACAIRA), focusing on research and systems for forensic voice comparison and text analysis. He also has expertise in AI more broadly, and an interest in applying business process mining.

Philip obtained his PhD in Computer Science from the University of Birmingham, for his thesis “A framework for the analysis and comparison of process mining algorithms”. The thesis proposed a probabilistic, machine learning framework within which to consider business process mining, and provided example applications to business problems.

He has extensive experience in Automatic Speech Recognition, with particular interest in new models for robust speech recognition, inspired by linguistically and physically plausible models of speech production. His background is systems analysis, design, integration, and administration in industry, in particular designing and developing cross-platform solutions to protect data, reduce risk, and improve information available to management and other stakeholders.

Research Interests

- Forensic voice comparison, natural language processing, automatic speech and speaker recognition.
- Machine learning, AI and text analytics for solving business problems.
- Business process mining, machine learning, probabilistic modelling, data analytics.

Research and Teaching Experience

2024 -	Member, Aston Centre for AI Research and Application (ACAIRA)
2023 -	Team leader for professional supervision on the DTSS 7 programme
2022 -	Deputy director, Aston Forensic Data Science Laboratory (FDSL) Member, Aston Institute for Forensic Linguistics (AIFL)
2021 -	Aston University, UK, Computer Science. Teaching: Information Security (BSc & MSc) Digital Forensics (BSc) Data Analytics (Digital Technology Specialist apprenticeship and MSc – DTSS) Professional supervisor and coach (DTSS) Academic supervisor (Professional Engineering). Guest lecturer for MSc AI – Vision and Reality module MSc & BSc project supervision
2020 - 2021	Aston University, UK, Aston Institute for Forensic Linguistics (AIFL), Forensic Speech Science Laboratory, Forensic Data Science Laboratory Research Fellow – Forensic Speech Science Guest lecturer for MSc AI – Vision and Reality module Professional supervisor for the Digital Technology Specialist apprenticeship and MSc Teaching assistant for Introduction to Forensic Speech Science MSc MSc project supervisor
2018 - 2019	Aston University, UK, School of Engineering and Applied Science Business Research Associate – Think Beyond Data – ERDF System Analytics for Innovation MSc project supervisor
2016 - 2018	University of Birmingham, UK, School of Computer Science Research Fellow – Automated Conflict Resolution in Clinical Pathways PhD co-supervisor
2013 - 2016	University of Birmingham, UK, School of Engineering (Electrical, Electronic and Systems) Research Fellow – Speech Recognition by Synthesis PhD and MSc co-supervisor
2009 - 2013	University of Birmingham, UK Student demonstrator for Foundations of Computer Science module, BSc Computer Science Tutor for Java Workshop module, MSc Computer Science
2008 - 2009	University of Birmingham, UK

MSc research in Process Mining and Self-Organising Maps
Student demonstrator for Databases module, MSc Computer Science

Education

2022 Fellow of the Higher Education Association (FHEA)
Postgraduate Certificate in Learning & Teaching in Higher Education (PGCert)

2020 - 2021 Associate Fellow of the Higher Education Association (AFHEA)
Introduction to Teaching and Learning Practice (Distinction)

2015 Process Mining: Data Science in Action, Eindhoven University of Technology, online course.

2009 - 2014 PhD Computer Science (July 2014)
University of Birmingham, School of Computer Science, Birmingham, UK
“A Framework for the Analysis and Comparison of Process Mining Algorithms”
Supervisors: Dr. Behzad Bordbar, Dr. Peter Tiňo

2008 - 2009 MSc Advanced Computer Science (Distinction)
University of Birmingham, School of Computer Science, Birmingham, UK
Supervisors: Dr. Behzad Bordbar, Dr. Peter Tiňo, Dr. John Bullinaria

1990 - 1994 BSc Computer Science (1st Class Hons.) with Diploma in Industrial Studies
Loughborough University of Technology, Loughborough, UK

Honours, Awards and Memberships

2015 - Member, IEEE

2020 Part of the Think Beyond Data team winning the Aston Outstanding Achievement Award "Outstanding Business Engagement and/or Innovation" category.

2009 MSc Graduation with Distinction
Award for best student in MSc Advanced Computer Science, 2008–2009
University of Birmingham, UK

2008 - 2015 Chartered Information Technology Professional (CITP)
Member of the British Computer Society (MBCS)

Industrial

2025 - Knowledge Transfer partnership with Phoebus Software, Birmingham, UK.

2019 - 2020 Member of the non-exec advisory board for GFA | Exchange (formerly FeeLYX).

Employment

2021 - Lecturer in Computer Science
Computer Science, School of Informatics & Digital Engineering, College of Engineering and Physical Sciences, Aston University, UK.
Affiliated with the Aston Institute for Forensic Linguistics (AIFL)
Forensic Speech Science Laboratory, Forensic Data Science Laboratory

2020 - 2021 Research Fellow in Forensic Speech Science
Aston Institute for Forensic Linguistics (AIFL), Aston University, UK
Forensic Speech Science Laboratory, Forensic Data Science Laboratory

2018 - 2019 Business Research Associate: “Think Beyond Data” – ERDF System Analytics for Innovation
School of Engineering and Applied Science, Aston University, UK

2016 - 2018 Research Fellow – Automated Conflict Resolution in Medical Pathways
School of Computer Science, University of Birmingham, UK

2013 - 2016 Research Fellow – Speech Recognition by Synthesis
School of Electrical, Electronic and Systems (EESE), University of Birmingham, UK

2011 - 2012 International Research Fellowship (3 months)
Etisalat BT Innovation Centre (EBTIC), Abu Dhabi, UAE

2005 - 2008 Senior UNIX / Storage Technologist
Egg, Citi Group

2002 - 2005 UNIX & NT Systems Engineer
Egg, Citi Group

1999 - 2002 Principal Infrastructure Analyst
Dixons Stores Group (DSG)

1997 - 1999 Analyst Programmer
Dixons Stores Group (DSG)

1994 - 1997 Systems Engineer
International Computers Limited (ICL), Fujitsu

Publications

Theses

P. Weber (2014). A Framework for the Analysis and Comparison of Process Mining Algorithms. *PhD Thesis, University of Birmingham*.

Journal Papers

Qiru Wang, S. Di Bartolomeo, C. Dunne, R. S. Laramee, I. Litchfield, P. Weber, Ka Xu (2025). Time Series Maps: Hierarchical Visualization of Blood Glucose Time Series Data. *Submitted to* BMC Bionformatics, Springer Nature.

A. S. Bali, N. Basu, P. Weber, C. Rosas-Aguilar, G. Edmond, K. A. Martire, G. S. Morrison (2024). Speaker identification in courtroom contexts – Part III: Groups of collaborating listeners compared to forensic voice comparison based on automatic-speaker-recognition technology. *Submitted to Forensic Science International.*

N. Basu, P. Weber, A. S. Bali, C. Rosas-Aguilar, G. Edmond, K. A. Martire, G. S. Morrison (2023). Speaker identification in courtroom contexts – Part II: Investigation of bias in individual listeners' responses. *Forensic Science International*, 349:111768.

N. Basu, A. S. Bali, P. Weber, C. Rosas-Aguilar, G. Edmond, K. A. Martire, G. S. Morrison (2022). Speaker identification in courtroom contexts - Part I: Individual listeners compared to forensic voice comparison based on automatic-speaker-recognition technology. *Forensic Science International,* 341:111499.

G. S. Morrison, N. Basu, E. Enzinger, P. Weber (2022). The opacity myth: A response to Swofford & Champod (2022). *Letter to the Editor, Forensic Science International: Synergy*, 5:100275, 2 pages.

G. S. Morrison, D. Ramos, R. J. F. Ypma, N. Basu, K. de Bie, E. Enzinger, Z. Geradts, D. Meuwly, D. van der Vloed, P. Vergeer, P. Weber (2022). A strawman with machine learning for a brain: A response to Biedermann (2022) The strange persistence of (source) "identification" claims in forensic literature. *Letter to the Editor, Forensic Science International: Synergy,* 4:100230, 2 pages.

G. S. Morrison, P. Weber, E. Enzinger, B. Labrador, A. Lozano-Díez, D. Ramos, J. González-Rodríguez (2022). Forensic voice comparison – human-supervised automatic approach. *In M. Houck, L. Wilson, S. Lews, H. Eldridge, P., Reedy, K. Lothridge (Eds.), Encyclopedia of Forensic Sciences (3rd Ed.),* Elsevier.

I. Litchfield, A. M. Turner, J. B. Ferreira Filho, M. Lee, P. Weber (2022). Automated conflict resolution for patients with multiple morbidity being treated using more than one set of single condition clinical guidance: A case study. *Computers in Biology and Medicine*, 144:105381, 7 pages.

P. Weber, E. Enzinger, B. Labrador, A. Lozano-Díez, D. Ramos, J. González-Rodríguez, G. S. Morrison (2022). Validation of the alpha version of the E3 Forensic Speech Science System (E3FS3) core software tools. *Forensic Science International: Synergy,* 4:100223, 13 pages.

G. S. Morrison, P. Weber, N. Basu, R. Puch-Solis, P. S. Randolph-Quinney (2021). Calculation of likelihood ratios for inference of biological sex from human skeletal remains. *Forensic Science International: Synergy, 3:100202,* 51 pages, 2021.

I. A. Trajano, J. B. Ferreira Filho, F. R. C. Sousa, I. Litchfield, P. Weber (2020). MedPath: A process-based modeling language for designing carepathways, *International Journal of Medical Informatics*, 146:104328, 9 pages. [Impact Factor 3.025].

R. P. De Figueiredo, J. B. Ferreira Filho, F. R. C. Sousa; P. Weber, Ian Litchfield (2020). Automated Verification of Care Pathways Using Constraint Programming. *IEEE Journal of Biomedical and Health Informatics*, 24(9):2718-2725. [Impact Factor 4.217].

I. Litchfield, A. Turner, R. Backman, J. B. F. Filho, P. Weber, M. Lee (2018). Automated conflict resolution between multiple clinical pathways: A technology report. *Journal of Innovation in Health Informatics,* 5(3):142-148. [RG Journal Impact: 0.50].

I. Litchfield, C. Hoye, D. Shukla, R. Backman, A. Turner, M. Lee, P. Weber (2018). Can process mining automatically describe care pathways of patients with long-term conditions in UK primary care? A study protocol. *BMJ Open*, 8:e019947 (9 pages). [Impact Factor 2.376].

P. Weber, J. B. F. Filho, B. Bordbar, M. Lee, I. Litchfield, R. Backman (2017). Automated Conflict Detection Between Medical Care Pathways. *Journal of Software: Evolution and Process (Special Issue on Software Engineering for Connected Health)*, 30(7):e1898 (18 pages). [Impact Factor 1.305].

R. Backman, P. Weber, A. M. Turner, M. G. Lee, I. Litchfield (2017). Assessing the extent of drug interactions amongst patients with multimorbidity in primary and secondary care in the West Midlands (UK): A study protocol for the Mixed Methods Multimorbidity Study (MiMMS). *BMJ Open,* 7(9):e016713 (8 pages). [Impact Factor 2.376].

B. Bordbar, P. Weber (2013). Automated Prevention of Failure in Complex and Large Systems: Fighting Fire with Fire. *International Journal of informatics Society (IJIS)*, 5(2):97-106.

P. Weber, B. Bordbar, P. Tiňo (2013). A Framework for the Analysis of Process Mining Algorithms. *IEEE Transactions on Systems, Man and Cybernetics: Systems*, 43(2), pp. 303-317. [Impact Factor 7.351].

Refereed Conference Papers

M. Hunter, N. MacLeod, R. Morton, P. Weber (2025). (Semi-)Automating Appraisal Annotation: Using corpus and computational methods to develop a scalable approach to stance analysis in deviant online communities. Accepted for presentation at Corpus Lingustics (CL2025), Aston, UK.

M. Hunter, N. MacLeod, R. Morton, P. Weber. (2025). Increasing speed without sacrificing quality: A step toward (semi-)automating the annotation of Appraisal. Accepted for presentation at the 17th Biennial Conference of IAFLL, South Africa.

N. Basu, P. Weber. A.S. Bali. C. Rosas-Aguilar, G. Edmond, K.A. Martire, G.S. Morrison (2024). Identificación del hablante por oyentes no expertos comparada con la comparación forense de la voz experta basada en tecnología de reconocimiento automático del hablante. XIII Congreso Iberoamericano de Acustica, FIA 2024, Santiago de Chile, Chile.

M. Mohamed, P. Weber (2020). Trends of digitalization and adoption of big data & analytics among UK SMEs: Analysis and lessons drawn from a case study of 53 SMEs. *Proc. 2020 IEEE International Conference on Engineering, Technology and Innovation, ICE/ITMC 2020,* 6 pages, Cardiff, UK.

L. Bai, P. Weber, P. Jančovič, M. Russell (2018). Exploring how phone classification neural networks learn phonetic information by visualising and interpreting bottleneck feature. *Interspeech 2018*, pp1472-1476, Hyderabad, India.

P. Weber, R. Backman, I. Litchfield, M. Lee (2018). A Process Mining and Text Analysis Approach to Analyse the Extent of Polypharmacy in Medical Prescribing. *Proc. 6th IEEE International Conference on Healthcare Informatics (ICHI 2018)*, pp. 1-11, New York, NY, USA.

P. Weber, J. B. F. Filho, B. Bordbar, M. Lee, I. Litchfield, R. Backman (2017). Automated Conflict Detection Between Medical Care Pathways. In *N. Carroll, C. Kuziemsky, I. Richardson (Eds.), Software Engineering for Connected Health (Journal First Session), Proc. International Conference on Software and System Process (ICSSP)*, Paris, France.

L. Bai, P. Jančovič, M. Russell, P. Weber, S. Houghton (2017). Phone Classification using a Non-Linear Manifold with Broad Phone Class Dependent DNNs. In *Proc. Interspeech 2017*, pp. 319-323, Stockholm, Sweden.

P. Weber, Linxue Bai, M. J. Russell, P. Jančovič, S. M. Houghton (2016). Interpretation of Low Dimensional Neural Network Bottleneck Features in Terms of Human Perception and Production. In *Proc. Interspeech 2016,* pp. 3384-3388, San Francisco, CA, USA.

M. Najafian, S. Safavi, P. Weber, M. J. Russell (2016). Identification of British English regional accents using fusion of i-vector and multi-accent phonotactic systems. In *Proc. Odyssey 2016*, pp. 132-139, Bilbao, Spain.

P. Weber, Linxue Bai, S. M. Houghton, P. Jančovič, M. J. Russell (2016). Progress on Phoneme Recognition with a Continuous-State HMM. In *Proc. ICASSP 2016*, pp. 5850-5854, Shanghai, China.

Linxue Bai, P. Jančovič, M. J. Russell, P. Weber (2015). Analysis of a Low-Dimensional Bottleneck Neural Network Representation of Speech for Modelling Speech Dynamics. In *Proc. Interspeech 2015,* pp. 583-587, Dresden, Germany.

S. M. Houghton, C. J. Champion, P. Weber (2015). Recognition of Voiced Sounds with a Continuous State HMM. In *Proc. Interspeech 2015,* pp. 523-527, Dresden, Germany.

P. Weber, C. Champion, S. Houghton, P. Jančovič, M. J. Russell (2015). Consonant Recognition with Continuous-State Hidden Markov Models and Perceptually-Motivated Features. In *Proc. Interspeech 2015*, pp. 1893-1897, Dresden, Germany.

P. Weber, S. Houghton, C. Champion, M. J. Russell, P. Jančovič (2014). Trajectory Analysis of Speech using Continuous State Hidden Markov Models. In *Proc. Acoustics, Speech and Signal Processing (ICASSP), 2014 IEEE International Conference on, pp.* 3042-3046, Florence, Italy.

P. Weber, B. Bordbar, P. Tiňo (2013). A Principled Approach to Mining From Noisy Logs Using Heuristics Miner. In *Proc. Computational Intelligence and Data Mining (CIDM), 2013 IEEE Symposium on, Singapore.*

P. Weber, P. Taylor, B. Majeed, B. Bordbar (2012). Comparing Complex Business Process Models. In *Proc. of the IEEE International Conference on Industrial Engineering and Engineering Management, IEEM 2012*, Hong Kong.

P. Weber, P. Tiňo, B. Bordbar (2012). Process Mining in Non-Stationary Environments. In Proc. of the 20th European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning - ESANN 2012, Bruges, Belgium.

P. Weber, B. Bordbar, P. Tiňo (2011). A Principled Approach to the Analysis of Process Mining Algorithms. In *Proc. of the 12th International Conference on Intelligent Data Engineering and Automated Learning - IDEAL 2011*, pp. 474-481, Lecture Notes in Computer Science, LNCS 6936, Springer.

P. Weber, B. Bordbar, P. Tiňo, B. Majeed (2011). A Framework for Comparing Process Mining Algorithms. *In The 6th IEEE GCC Conference*, pp. 625-628, IEEE Computer Society.

Workshop and Other Papers

P. Weber, E. Enzinger, B. Labrador-Serrano, A. Lozano-Díez, D. Ramos, J. González-Rodríguez, G. S. Morrison (2022). The E3 Forensic Speech Science System (E3FS3): Design principles and validation of core software tools. *Presented at the 9th European Academy of forensic Sciences (EAFS) conference*, Stockholm, Sweden.

I. Litchfield, M. Lee, P. Weber (2018). **The Automated Identification and Mitigation of Conflict Between Clinical Pathways**. *Presented at the 46th North American Primary Care Research Group (NAPCRG) Annual Meeting*, Chicago, USA.

I. Litchfield, M. Lee, P. Weber (2018). Using Process Mining to Automatically Describe and Compare Pathways of Patients with Long-Term Conditions in Primary Care. *Presented at the 1st Annual Implementation Science Research Conference, King's College, London*.

I. Litchfield, A. Turner, R. Backman, P. Weber, M. Lee (2017). Automated Conflict Resolution between multiple Clinical Pathways: An Aid for Family Practitioners. *Presented at the 45th North American Primary Care Research Group (NAPCRG) Annual Meeting*, Montreal, Quebec, Canada.

I. Litchfield, J. Bowles, B. Bordbar, A. Turner, R. Backman, P. Weber, M. Caminati, M. Lee (2017). Automated Conflict Resolution between multiple Clinical Pathways: An Aid for Family Practitioners. *Presented at the 44th North American Primary Care Research Group (NAPCRG) Annual Meeting*, Colorado Springs, USA, 2016, and *3rd West Midlands Health Informatics Network (WIN) Annual Conference*, Warwick, UK, 2017.

P. Weber, B. Bordbar, P. Tiňo (2011). Real-Time Detection of Process Change using Process Mining. *In The 1st Imperial College Computing Student Workshop - ICCSW 2011*, pp. 108-114, London.

Other Talks

P. Weber, N. Basu, A. S. Bali, C. Rosas-Aguilar, G. Edmond, K. A. Martire, G. S. Morrison (2025). Speaker identification in courtroom contexts: performance of individual and groups of human listeners compared to automatic forensic voice comparison, invited talk at UK and Ireland Speech Workshop (UKIS), York.

P. Weber (2024). Justifying AI in court: Human or machine analysis of evidence? at BrumAI Meetup, Aston University, Birmingham. https://youtu.be/NTleeUOkivo.

P. Weber (2021). Forensic Voice Comparison (Automatic Speaker Recognition), at BrumAI Meetup, Online.

P. Weber (2020). Automatic Speech Recognition: where AI meets Human Intelligence, at BrumAI Meetup, Aston University, Birmingham.

P. Weber (2016). Can Deep Neural Networks Inform Speech Science? Automatically-Derived Meaningful Representations of Speech, at PERCAT LES & EPS Research Conference, University of Birmingham.

P. Weber (2015). Consonant Recognition with Continuous-State Hidden Markov Models and Perceptually-Motivated Features, at UK Speech, University of East Anglia.

Posters

R. O. Ribeiro, P. Weber, G. S. Morrison (2025). Stop using similarity-score-based likelihood ratios. Presented at the European Academy of Forensic Science Conference (EAFS), Dublin, Ireland.

P. Weber (2023). An initial empirical analysis of the effect of sampling variability in a forensic voice comparison system. Presented at the UK Speech Conference, The University of Sheffield.

N. Basu, A. S. Bali, P. Weber, C. Rosas-Aguilar, G. Edmond, K. A. Martire, G. S. Morrison (2022). Speaker identification in courtroom contexts: Individual listeners vs automatic forensic voice comparison. Presented at the UK Speech Conference, The University of Edinburgh.

Linxue Bai, P. Weber, P. Jančovič, M. Russell (2019). Exploring How Phone Classification Neural Networks Learn Phonetic Information by Visualising and Interpreting Bottleneck Features. Presented at the UK Speech Conference, University of Birmingham.

P. Weber, R. Backman, I. Litchfield, M. Lee (2018). A Process Mining and Text Analysis Approach to Analyse the Extent of Polypharmacy in Medical Prescribing. Presented at the Clinical Science and Engineering for Digital Health Workshop, Aston University.

R. Backman, A. Turner, P. Weber, M. Lee, I. Litchfield (2016). A Mixed Methods Approach to Assessing Multimorbidity in Primary and Secondary Care (MiMMS). Presented at the PERCAT Research Gala, University of Birmingham.

Linxue Bai, P. Jančovič, M. Russell, P. Weber (2015). Analysis of a Low-Dimensional Bottleneck Neural Network Representation of Speech for Modelling Speech Dynamics. Presented at the UK Speech Conference, University of East Anglia, Norwich.

P. Weber, S. Houghton, C. Champion, M. J. Russell, P. Jančovič (2014). Trajectory Analysis of Speech using Continuous State Hidden Markov Models. Presented at the UK Speech Conference, University of Edinburgh, Google's 1st Doctoral Workshop on Speech Technology, London, and the College of Engineering and Physical Sciences Research Conference, University of Birmingham.

P. Weber, B. Bordbar, P. Tiňo (2012). A Framework for the Analysis of Process Mining Algorithms. Presented at the CS & EECE PhD Student trip to the Raymond Priestly Centre, Coniston.

P. Weber, B. Bordbar, P. Tiňo (2010). Real-time Process Mining? Presented at the British Science Festival doctoral research showcase, University of Birmingham, and Industrial Advisory Board, School of Computer Science, University of Birmingham.

Panel membership

Symposium on Disruptive Technologies in Food Supply Chains (2019). Panel discussion: Critical challenges of food logistics and supply chain management: Can new technologies address them? Aston Business School.

Funding Applications

- National Institute for Health Research (NIHR): Health Service and Delivery Research (HS&DR) Insight Research Programme (small-scale award). The use of process mining to determine the processes of care for Type II Diabetes in primary care. (Co-Applicant; PI Dr. Ian Litchfield), 2017.
- British Council Newton Fund Institutional Links Grants: Improving Decision Making in Care Pathways Using Process Mining. (Co-Applicant; PI Dr. Mark Lee, CoI Dr I Made Murwantura), 2017.
- NIHR HS&DR: Work force and skill mix in GP primary care services. The use of process mining in optimising the work force and skill mix in GP primary care services. (Co-Applicant; PI Dr. Ian Litchfield), 2017.
- Birmingham-Nottingham Strategic Collaboration Fund: Polypharmacy in Multimorbidity – What is the true extent of patient burden in the Midlands? (Collaborator; PI Dr Ruth Backman), 2017.
- EPSRC: Using Process-Oriented Resource Alignment to Improve Efficiency in Primary Care. (Co-Applicant; PI Dr. Behzad Bordbar), 2016.
- NIHR HS&DR: Researcher-led (NIHR Multimorbidities Themed Call). Optimising Pathways in Multi-Morbidity (OPtiMuM). (Co-Applicant; PI Dr. Krishnarajah Nirantharakumar), 2015.

Reviewing

Recent Advances in Natural Language Processing (RANLP), 2025

RANLP, 2025.

LoResLM-Coling, 2025

Interspeech, ISCA, 2020-2025

Forensic Science International, Elsevier, 2021-2025

Computers in Biology and Medicine, Elsevier, 2023-2025

5th European Conference of the IAFLL, 2024

Journal of Software: Evolution and Process, Wiley, 2017–2024

IEEE Technology and Society Magazine, 2023

Complex and Intelligent Systems, Springer, 2023

Journal of Forensic Sciences, Wiley, 2022

Forensic Science International: Digital Investigations, Elsevier, 2021

ICASSP, IEEE, 2021, 2022

IEEE Access, 2020

IEEE Transactions on Knowledge and Data Engineering, 2017–2018

IEEE Transactions on Services Computing, 2017–2018

Scientific Reports (Nature Publishing Group) 2015–2016.

IEEE Transactions on Knowledge and Data Engineering, 2014

IEEE Symposium Series on Computational Intelligence (SSCI 2013 & 2014).

The 19th International Conference on Neural Information Processing (ICONIP 2012).

2011 Imperial College Computing Student Workshop (ICCSW 2011).

Student Supervision

2024- PhD: Rafael Oliveira Ribeiro, co-supervised with Dr. G.S. Morrison, provisional thesis title “The forensic-data-science paradigm and forensic comparison of facial images”.

2020- MSc, BSc: Computer Science / with AI / Business

Professional and academic supervisor for students on the Data Analytics and IT Strategy streams of the Aston Digital Technology Specialist Apprenticeship scheme.

2018-2020 Final project supervision for students on the Aston Degree Apprenticeship scheme.

Informal PhD supervision:

2016-2017 Krishna Margadhamane Gokhale, PhD candidate, Institute of Applied Health Research, University of Birmingham. Applications of machine learning and process modelling to medical data analytics.

2013-2017 Linxue Bai, PhD (graduated 2018), Department of Electrical, Electronic and Systems Engineering (EESE), University of Birmingham. Low dimensional representations of speech for ASR.

Administration

2024 - Academic malpractice officer for Aston School of Informatics and Digital Engineering

2022 - Deputy director of Aston Forensic Data Science Laboratory (FDSL)

2022 - Systems administrator for Aston Computer Science and Beautiful Canoe

2020-2021 Early Career Researcher (ECR) training coordinator for AIFL, Aston University.

2019-2020 Chair of the ECR Forum committee, Aston University.

2018 Postdoctoral and Early Researcher Career Development and Training (PERCAT) representative for the School of Computer Science, Birmingham (2018).

Other Skills

Technical

- Programming in Python, UNIX / Linux Shell, Perl, Matlab.
- Machine/deep learning, (deep) neural networks; PyTorch, Keras, TensorFlow, Theano.
- Process modelling and analysis using BPMN, CPN/Tools, (Coloured) Petri Nets, Probabilistic Automata.
- Database design and development with strong understanding of SQL.
- Sun Enterprise servers and Solaris UNIX, Veritas NetBackup and Volume Management, SAN storage.

Professional

- Experienced at working in a strictly change controlled environment, to tight SLAs.
- Flexible and adaptable, maintaining good working rapport with colleagues at all levels.
- Used to working under pressure, delivering changing priorities to tight timescales.
- A proven affinity to quickly pick up new technologies and skills.

References

Upon request.