Résumé

Dr David Brendan Dean

Experienced data science leader with over 20 years experience in academia and industry, seeking opportunities in spatial analysis data science. History of leading research projects, mentoring researchers, and collaborating widely to deliver innovative solutions.

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located Armidale, NSW

Experience

Moving Through Country	*March 2023 to present*
Founder	Developing mobile app to promote Indigenous-run businesses and points of interest in Australia, while improving the representation of Indigenous knowledge and cultures in traditional mapping projects. Currently building board of advisers and seeking co-partner to get project off the ground.
TAFE NSW	*December 2018 to March 2023* tafensw.edu.au
Learning Analytics Manager	Guiding the Learning Analytics Team in developing learning analytic and machine-learning solutions to improve student and trainee learning experiences.
Senior Manager, Insights & Engagement (Acting)	*June 2022 to September 2022*
	Supporting the Customer Voice and Learning Analytics Teams in developing Education Quality Insights for TAFE NSW.
Machine Learning Specialist, Digital Learning Lab	*February 2018 to December 2018*
	Developing innovative machine learning and immersive technologies for use in training, education and industry.
OpenStreetMap	*September 2007 to present* osm.org bit.ly/bnemaps
Volunteer Community Organiser *Open-source developer*	Evangelising and running OpenStreetMap events, including open-source and machine-learning development on related software (see github.com/dbdean).
University of Queensland	*February 2017 to January 2018* uq.edu.au
Lecturer in Data Science	Contribute to the training of data scientists who can tackle real-world problems in industry, government and academia.
Machine Learning Consultant	*September 2016 to July 2017*
Wink Health, California (winkhealth.com) M3dince, Brisbane (stethee.com)	Research, implementation, and integration of signal processing and machine learning algorithms into production systems for the detection of health problems from acoustic signals.
Queensland University of Technology	*February 2004 to June 2019* qut.edu.au/research/saivt
Visiting Senior Research Fellow *Senior Research Fellow (prior to July 2016)* *Research Fellow (prior to 2014)*	Senior machine learning (now visiting) researcher with Vision and Signal Processing. Supervision of researchers and guding novel research projects over a wide range of ARC, CRC and industry supported research areas, including:

- Leading projects for commercial implementation of novel speaker diarisation and speaker recognition systems (government and industry funded)
- Leading the collection of real-world databases for the evaluation and development of audio and/or visual speech processing algorithms (gov. funded)

Selected Industry and Academic Research Partners	AutoCRC ▪ Smart Services CRC ▪ ValidVoice ▪ NSSTC/DST ▪ Auscript ▪ University of Avignon ▪ Radboud University

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Academic

RMIT University	*February 2023 to present*
Graduate Certificate in Geo-spatial Science	Expanding my expertise in data science to include spatial data analysis, to provide valuable insights for decision-making in fields that require geospatial expertise.
Queensland University of Technology	*February 1999 to June 2019*
Publications	1537 citations across 95+ publications, with 41 publications having more than 10 citations, and a h-index of 19.
	Full list available at *bit.ly/ddscholar*.
Selected Publication Venues	Speech Communication ▪ Computer Speech and Language ▪ IEEE Transactions on Audio, Speech and Language Processing ▪ International Conference on Acoustics Speech and Signal Processing (ICASSP) ▪ Interspeech ▪ Auditory-Visual Speech Processing (AVSP)
PhD Supervision	Supervised 7 PhD students in speech and behavior recognition, including visual recognition of human behavior, speaker recognition, and emotional recognition using deep learning, from 2009 to 2018.
Doctor of Philosophy	*February 2004 to March 2008*
	Synchronous HMMs for Audio-Visual Speech Processing
Bachelor of Information Technology (with Distinction)	*February 1999 to November 2003*
	GPA of 6.425 (on a 1 to 7 scale, 7 being highest)
Bachelor of Engineering – Electronics (First Class Honours)	High Distinction or Distinction in 85% of subjects

Professional

Memberships	IEEE ▪ ISCA ▪ ASSTA ▪ OSMF
Technical Review Committees	Interspeech ▪ ICASSP ▪ SST ▪ Speaker Odyssey ▪ IEEE Transactions on Multimedia ▪ IEEE Transactions on Audio, Speech and Language Processing ▪ Computer Speech and Language ▪ Speech Communication
Invited Speaker	SLAM 2015 (keynote) ▪ Biometrics Institute ▪ Auto CRC ▪ Smart Services CRC
Event Organisation	Brisbane OSM Events (25+ events since 2008) bit.ly/bnemaps

Technical Overview

Research	Learning Analytics ▪ Deep learning ▪ Data Science ▪ Audio-visual speech ▪ Speaker recognition ▪ Speaker diarisation ▪ Speech activity detection ▪ Image processing ▪ Reproducible research code ▪ Releasing research databases ▪ Project Management ▪ Research Commercialisation
Data Engineering	C/C++ ▪ Embedded C ▪ Python ▪ Shell ▪ MATLAB/Octave ▪ Javascript ▪ HTK ▪ Git ▪ Kaldi ▪ Caffe ▪ TensorFlow ▪ Numpy ▪ Scipy ▪ Django ▪ PostgreSQL ▪ MySQL ▪ Docker ▪ Linux ▪ Amazon Web Services ▪ Travis CI ▪ Grid Engine/PBS