Résumé

Objective

Apply 14 years of research and commercialisation experience to develop and improve state-of-the art machine-learning research algorithms and turn them into useful, reusable code that can make life easier for researchers, engineers, and the wider public.

Personal Particulars

Name	**Dr David Brendan DEAN** **dbdean.com**
Address	209 Brown St, Armidale, New South Wales, Australia **(willing to relocate internationally or work remotely)**
Telephone	+61 407 151 912
Email	ddean@ieee.org

Work Experience

TAFE NSW Digital	*February 2018 to present*	tafensw.edu.au/digital
Lead Machine Learning Specialist	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 *Mapper*	Evangelising and running OpenStreetMap events and all great things mappy in Brisbane, including open-source development on related software (see github.com/dbdean).	
Open-source developer	Investigating and developing machine-learning solutions for Humanitarian OpenStreetMapping	hotosm.org
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*	
Major Clients: 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 present*	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 junior researchers and conducting novel research over a wide range of ARC, CRC and industry supported research areas, including:	

- Developing novel techniques for and commercial implementation of speaker diarisation and speaker recognition systems (government and industry funded)
- Organising 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 ▪ For The Record ▪ University of Avignon ▪ Radboud University ▪ Universidad Autónoma de Madrid ▪ DevAudio
Clockwork Computing	*May 1999 to February 2004*

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Academic

Queensland University of Technology	*Feb 1999 to present (visiting since July 2016)*
Publications	692 citations across 75+ publications, with 22 publications having more than 10 citations, and a h-index of 14.
	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	Visual Recognition of Human Behaviour in Noisy Environments *Rajitha Navarathna (2009–2013)*
	Robust Automatic Speaker Linking and Attribution *Houman Ghaemmaghami (2010–2013)*
	Speaker Recognition Using I-Vector Features *Ahllan Kanagasundaram (2010–2014)*
	Improving Spoken Term Detection Using Complementary Information *Shahram Kalantari (2011–2015)*
	Domain Adaptation for Speaker Attribution *MD Hafizur Rahman (2014–2017)*
	Speaker Recognition in High Noise Environments Ahmed Kamil (2014–2017)
	Multi-modal Emotional Recognition Using Deep Learning Dung Nyugen Tien (2015–2018)
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	Deep learning ▪ Data Science ▪ Audio-visual speech ▪ Speaker recognition ▪ Speaker diarisation ▪ Speech activity detection ▪ Image processing ▪ Reproducible research code ▪ Releasing research databases
Software Engineering/DevOps	Project Management ▪ Research Commercialisation ▪ 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