Résumé

Objective

Apply 12+ 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 379 Milton Rd, Auchenflower, Queensland, Australia
(willing to relocate internationally or work remotely)

Telephone +61 407 151 912

Email ddean@ieee.org

Work Experience

OpenStreetMap *October 2008 to present* osm.org bit.ly/bnemaps

Volunteer Community Organiser

Evangelising and running OpenStreetMap events and all great things mappy in Brisbane, including open-source development on related software (see github.com/dbdean).

Investigating and developing machine-learning solutions for Humanitarian OpenStreetMapping hotosm.org

University of Queensland *February 2017 to present* 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.

- Developing evaluation frameworks, and designing and deploying an associated distributed processing Docker-based AWS clusters
- Integration of signal processing and machine-learning techniques for use in customer-facing web and embedded C hardware

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*

Résumé

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