

# Résumé

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David Dean



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## Personal Particulars

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**Name** David Brendan DEAN  
**Address** 290 Kelvin Grove Rd, Kelvin Grove, Qld 4059  
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**Website** <http://www.davidbdean.com>

## Membership

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**Institute of Electrical & Electronics Engineers (IEEE)** Graduate/student member since July 2003

## Academic

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**Queensland University of Technology** *February 2004 to March 2008*

*Speech, Audio Image and Video Technologies Laboratory* Doctor of Philosophy

*Thesis Title* Synchronous HMMs for Audio-Visual Speech Processing

Investigating novel approaches to the training and testing of synchronous HMMs for audio-visual speech and speaker recognition. (currently under external review)

*Supervisory Team* Professor Sridha Sridharan (principal)  
Associate Professor Vinod Chandran (associate)  
Dr Tim Wark (associate)

*Recent Publications* D. Dean, P. Lucey, S. Sridharan, and T. Wark, "Fused HMM-adaptation of synchronous HMMs for audio-visual speech recognition," *Digital Signal Processing (submitted)*  
D. Dean, P. Lucey, S. Sridharan, and T. Wark, "Weighting and normalisation of synchronous HMMs for audio-visual speech recognition," in *Auditory-Visual Speech Processing, Hilvarenbeek*, The Netherlands, September 2007, pp. 110-115  
D. Dean, P. Lucey, S. Sridharan, and T. Wark, "Fused HMM-adaptation of synchronous HMMs for audio-visual speech recognition," in *Interspeech 2007*, Antwerp, August 2007, pp. 666-669  
D. Dean, S. Sridharan, and T. Wark, "Audio-visual speaker verification using continuous fused HMMs," in *HCSNet Workshop on the Use of Vision in HCI (VisHCI)*, 2006

**Queensland University of Technology** *February 1999 to November 2003*

Bachelor of Information Technology (with Distinction)  
Bachelor of Engineering – Electronics (First Class Honours)

*Grade Point Average* 6.425 (on a 1 to 7 scale, 7 being highest)

High Distinction or Distinction in 85% of subjects

*Selected High Distinctions*

- Image Processing and Computer Vision
- Foundations of Artificial Intelligence
- Foundations of Neurocomputing
- Software Development for the Web
- Advanced Programming Laboratory
- Advanced Design

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## Academic Continued...

*Projects* Development of software that can translate an incoming voice signal into movements of an artificial talking face, to help the hard-of-hearing with telephone conversations. (Final year project)  
*High Distinction*

*IEEE Best Final Year Project Presentation*  
*Multitrode Excellence Award*

Extension of existing power distribution resource management software to include the cost effects of residential, commercial and industrial solar arrays.  
*High Distinction*

*Special Achievements* Dean's List of Students with Excellent Academic Performance  
*For five of ten semesters*

**Morayfield State High School** *1998 Senior Certificate (Overall Position of 2)*

## Work and Experience

**Queensland University of Technology** *July 2004 to November 2005*

*Computer Architecture (ITB616)* • Tutorial supervision *Semester 2, 2004*

*Unix and C for Engineers (EEP102)* • Principal lecturer *Semester 1, 2005*  
• Tutorial planning, supervision and marking  
• Assignment planning and marking  
• Exam preparation and marking

*Introduction to Design (EEB584)* • Stand-in lecturer (4 lectures) *Semester 1, 2005*

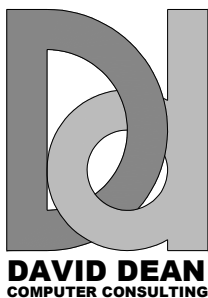
*Electrical and Computer Engineering 1 (EEB112)* • Tutorial planning and supervision *Semester 2, 2005*  
• Assignment marking

*Digital Systems and Control (EEB521)* • Principal lecturer *Semester 1, 2008*  
• Assignment planning and marking  
• Exam preparation and marking

**Clockwork Computing** *July 2002 to February 2004, and*

**David Dean Computer Consulting** *May 1999 to July 2002*

*Clockwork Computing* Programming, management and design of scheduling software for use by a wide variety of customers. Phone 07 3854 1479



### Relevant Experience Gained

- Management of large scale programming tasks, from original design through implementation, testing, and ongoing maintenance.
- Development of web-based applications, including reservations taking, online shopping, and automated customer support.
- Database design for complicated systems.
- Technical support of computer systems and network administration tasks.

**David Dean Computer Consulting** *December 1998 to November 2000*

*Various Clients* Performed consultancy work and assisted with computer aided design (CAD) for various clients

### Relevant Experience Gained

- Computer aided design of office and warehouses with electrical, lighting and data cable wiring.
- Technical support of computer systems.

**Target Australia** *February 1997 to December 1998*

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## Skills and Experience

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### *Research Topics*

- Audio-visual speech and speaker recognition
- Visual front-end (localisation and tracking)
- Dynamic visual speech feature extraction
- GMMs, HMMs, Multi-stream HMMs

### *Programming and Design*

- MATLAB
- C++ (both g++ and Microsoft Visual C++)
- CVS and subversion
- Java
- Python
- Unix/Linux scripting (bash)

### *Computer and Network Management*

- Operation of Linux and Unix environments
- Operation of Microsoft Windows (all versions)
- Expert computer and networking hardware skills

## Hobbies and Interests

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### *Open Source Software*

- Contributing GPS traces and street information to [openstreetmap.org](http://openstreetmap.org)
- NaviPOWM (Pocket PC Navigation software based on [openstreetmap.org](http://openstreetmap.org))

### *Outdoor*

- Hiking
- Cycling
- Geocaching

## Referees

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### **Professor Sridha Sridharan**

*Principal PhD Supervisor*

Faculty of Built Environment and Engineering, QUT  
GPO Box 2434, Brisbane QLD 4001  
Phone: 07 3138 2113 Fax: 07 3138 1529  
Email: [s.sridharan@qut.edu.au](mailto:s.sridharan@qut.edu.au)

### **Associate Professor Vinod Chandran**

*Subject Coordinator EEP102 (2005)  
Associate PhD Supervisor*

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### **Michael Mason**

*Subject Coordinator EEB521 (2008)  
Research Colleague, QUT*

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