

James Edge

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STATEMENT

A recent film school graduate who has previously worked at a high level in computer animation research. I am both motivated and organised, with a track record of high achievement. Currently looking for a new career challenge which will take advantage of both my technical and creative skills.

EDUCATION

MA. FILM-MAKING, THE LONDON FILM SCHOOL, 2014

I completed a Masters course in Film-making at the London Film School, where I specialised in Directing and Producing. I Directed four films, and Produced three more including two graduate films as well as working on many other projects in smaller roles. This study allowed me to learn about all aspects of film production, across all departments (Production/Camera/Lighting/Sound/Editing) and at all levels.

PHD COMPUTER SCIENCE, THE UNIVERSITY OF SHEFFIELD, 2004

Thesis title: *Techniques for the synthesis of visual speech.*

My PhD was focused upon techniques for animating the faces of computer-generated characters. In particular I addressed speech vocalisation, but I also worked on performance capture (marker-based mocap) along with more general animation techniques. The two most prominent achievements of my research are: i) the development of an optimisation approach for animating speech lip movements, and ii) a method for re-targetting facial mocap to different characters. Devoting several years of my life to a research degree has taught me to be self motivated, and the ability to push for and achieve both short and long term objectives.

BSC. (HONS) IN COMPUTER SCIENCE, 1st, THE UNIVERSITY OF SHEFFIELD, 2000

A-LEVELS: Mathematics, Physics, Biology.

EMPLOYMENT

RESEARCH FELLOW (EPSRC) UNIVERSITY OF SURREY
NOVEMBER 2005 - NOVEMBER 2010

Following on from my PhD research I joined the Centre for Visual Speech and Signal Processing (CVSSP) to work on performance-based techniques for animating speech. This involved working with, and looking after the group's stereoscopic face capture setup, managing its use and access. For my own research I captured a database of speech movement which was used as the basis for several publications, talks and presentations. I also co-supervised a successful PhD student, and helped numerous others in progressing their own work.

At the end of my time in this role I conducted a technology transfer position with Framestore, a London-based visual effects company. I implemented tracking software developed at the CVSSP within their pipeline as a Nuke plugin, taking advantage of their render farm technology to massively improve the efficiency of the data processing.

SOFTWARE DEVELOPER

THE UNIVERSITY OF SHEFFIELD
 THE UNIVERSITY OF HULL
 CURIOUS LABS

SEPTEMBER 2004 - SEPTEMBER 2005

During my time at Sheffield University I helped develop software for several collaborative projects. For researchers at the Psychology department at Sheffield I developed image morphing software to help with experiments on infant perception. For the Psychology department at The University of Hull I developed software to animate static facial scans with motion-capture data. For Curious Labs I conducted a feasibility study into using the retargetting technique I developed during my PhD to produce morph target assets for the release of Poser 6.0.

TEACHING ASSISTANT

THE UNIVERSITY OF SHEFFIELD

SEPTEMBER 2000 - SEPTEMBER 2005

Collaborated in developing a course on character animation for final year students. Assisted in the marking of assignments for courses on programming, graphics/animation and human-computer interaction.

INTERESTS

Traditional Film-making, Photography, Computer Animation (Character Animation, Modelling Human Motion), Computer Graphics (Rendering), Computer Vision (Tracking), Machine Learning (Statistical Modelling), Motion Capture (Marker-based, Surface Capture), Image Processing, Physics.

COMPUTER SKILLS

OS:	Linux	Intermediate	
	OSX	Intermediate	
	Windows	Expert	
SOFTWARE:	After Effects	Intermediate	
	Avid MC	Intermediate	Edited all LFS projects in Avid.
	DaVinci Resolve	Beginner	
	Nuke	Intermediate	Completed several fxphd courses.
PROGRAMMING:	Photoshop	Intermediate	
	Visual C++	Expert	
	C/C++	Expert	
	C#	Intermediate	
	Java	Expert	
	Javascript	Intermediate	
	HTML	Expert	
	Objective-C	Beginner	Developed IOS applications.
	Perl	Intermediate	
Python	Intermediate		

OTHER SKILLS

Driving (full clean driving licence)

References available upon request.

Last edited September 9, 2014

SHORT FILM
CREDITS

<i>Deserts</i> (Summer 2014)	The London Film School Producer. 20 minute short fiction. Graduation film about a couple of childhood friends who are spending their last day together before parting. Shot on the Arri Alexa camera in HD.
<i>Closely Watched Rooms</i> (Spring 2013)	The London Film School Writer/Director. 15 minute short fiction. A film about Alex, a boy in his late teens who spends his time spying on people over their webcams. Shot on the Arri Alexa camera in HD.
<i>My Son Woke Me Up</i> (Autumn 2012)	The London Film School Producer. 10 minute short fiction. A film about a family dealing with the emotional aftermath of the mother's death. Shot on 35mm black & white film.
<i>England's Lourdes</i> (Summer 2012)	The London Film School Director. 10 minute short documentary. A documentary about life in and around the seafront at Canvey Island. Shot on HD. Winner: Best Cinematography, Toamna La Voronet, 2012.
<i>14 Poems</i> (Spring 2012)	Howard Barker Poetry recordings for www.howardbarker.co.uk . Filming of poetry for the poet/playwright Howard Barker, recorded at the National Theatre. Shot on HD.
<i>The Turing Test</i> (Spring 2012)	The London Film School Writer/Director. 3 minute short fiction. A film about a scientist who creates a robot woman. Shot on 16mm colour film.
<i>Driftwood</i> (Autumn 2011)	The London Film School Writer/Director. 4 minute short fiction. A film about a man who loses his job and spends his days wandering around a seaside town. Shot on 16mm black & white film.
<i>Burzai Bavno</i> (Summer 2008)	London Film Academy Producer/Editor. 3 minute short fiction. A film about a mistaken assassination. Shot on super 16mm black & white film.

PUBLICATIONS

FULL RESEARCH PAPERS:

- M. Klaudiny, A. Hilton, and J.D. Edge. *High-detail 3D capture of facial performance*. 3DPVT, 2010.
- J.D. Edge, A. Hilton, and P. Jackson. *Model-based synthesis of visual speech movements from 3D video*. Journal of Audio, Speech and Music Processing, 2009.
- J.D. Edge, A. Hilton, and P. Jackson. *Model-based synthesis of visual speech movements from 3D video*. BMVA Symposium on Facial Analysis and Animation, 2009.
- J.D. Edge, A. Hilton, and P. Jackson. *Parameterisation of 3D speech lip movements*. In proceedings of AVSP, 2008.
- S. Haq, P. Jackson, and J.D. Edge. *Audio-visual feature selection and reduction for emotion classification*. In proceedings AVSP, 2008.
- J.D. Edge, and A. Hilton. *Visual speech synthesis from 3D video*. In proceedings of GRAPP, 2007.
- A. Turkmani, A. Hilton, P. Jackson, and J.D. Edge. *Visual analysis of lip coarticulation in VCV utterances*. In proceedings of Interspeech, 2007.
- N. Nadtoka, J.R. Tena, A. Hilton, and J.D. Edge. *High-resolution animation of facial dynamics*. In proceedings of CVMP, 2007.
- S. Maddock, J.D. Edge, and M. Sanchez. *Movement realism in computer facial animation*. In proceedings of Workshop on Human-Animated Characters Interaction, 2005.
- J.D. Edge, M. Sanchez, S. Maddock. *Reusing motion data to animate visual speech*. Symposium on Language, Speech and Gesture for Expressive Characters, 2004.
- M. Sanchez, J.D. Edge, S. King, and S. Maddock. *Use and re-use of facial motion capture data*. In proceedings of Vision, Video and Graphics, 2003.
- J.D. Edge, and S. Maddock. *Image-based talking heads using radial basis functions*. In proceedings of EGUK, 2003.
- J.D. Edge, and S. Maddock. *Expressive visual speech using geometric muscle functions*. In proceedings of EGUK, 2001. (winner: best paper in conference)

SHORT RESEARCH PAPERS/POSTERS/TALKS:

- J.D. Edge, A. Hilton, and P. Jackson. *Model-based synthesis of visual speech movements from 3D video*. ACM SIGGRAPH Poster, 2009.
- D. Cosker and J.D. Edge. *Laughing, crying, sneezing and yawning: Automatic voice driven animation of non-speech articulations*. CASA, 2009. (this work was featured on the New Scientist website)
- J.D. Edge, A. Hilton, and P. Jackson. *Parameterising visual speech movements*. SCA Poster, 2008.
- J.D. Edge, A. Hilton, and N. Nadtoka. *3D video face capture and registration*. BMVA Symposium on 3D Video, 2008.
- N. Nadtoka, J.D. Edge, A. Hilton, and P. Jackson. *3D video analysis of emotional speech*. UKSpeech Poster, 2008.
- S. Haq, P. Jackson, and J.D. Edge. *Audiovisual emotion recognition in an English database*. UKSpeech Poster, 2008.
- J.D. Edge, and A. Hilton. *Visual speech synthesis from 3D video*. CVMP Poster, 2006.
- N. Nadtoka, P. Jackson, J. Edge, A. Hilton, and J. Tena. *Representing dynamics of facial expressions*. CVMP Poster, 2006.
- J.D. Edge, and S. Maddock. *Constraint-based synthesis of visual speech*. ACM SIGGRAPH Technical Sketch, 2004.

ANIMATIONS:

- M. Sanchez, J.D. Edge, and S. Maddock. *Performance-driven facial animation*. Eurographics Animations Showcase, 2006.

IMAGES:

A. Watt, and F. Policarpo. *3D Games: Animation and Advanced Real-time Rendering*. Addison-Wesley, 2003. Several published images.