Matthew Roddy

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www.github.com/mattroddy

Specialist Interests

Spoken dialogue systems, machine learning, multimodal interaction, speech technologies

Degrees

Trinity College, Dublin, Ireland

PhD in Electrical Engineering **Summer 2019**

- Research subject: Applications of deep learning for modeling conversational turn-taking and user engagement with spoken dialogue systems
- Supervisor: Dr. Naomi Harte

Dublin City University, Dublin, Ireland

Master's Degree in Electronic Systems (MEng.) **March. 2016**

- Thesis title: DSP-based Model Estimation and Control of a Loudspeaker for an Active Noise Control System

University of Limerick, Limerick, Ireland

Master's Degree in Music Technology (MSc.) **Dec. 2013**

- Thesis title: A Method of Morphing Spectral Envelopes of the Singing Voice for use with Backing Vocals

Trinity College, Dublin, Ireland

Bachelor's Degree in Music (B.A) **Jun. 2010**

Publications

Roddy, M. and Harte, N. "Conversational Gaze Aversion Detection Using Unsupervised Learning", in *European Signal Processing Conference (Eusipco)*, Kos, Greece, September 2017.

Roddy, M. and Harte, N. "Towards predicting dialog acts from previous speakers non-verbal cues", in *European Symposium on Multimodal Communication (MMSYM)*, Bielefeld, Germany October 2017.

Roddy, M. and Walker, J. "A method of morphing spectral envelopes of the singing voice for use with backing vocals", in *International Conference on Digital Audio Effects (DAFX)*, Erlangen, Germany, September 2014.

Reviewer

Conference of the *Irish Sound, Science, and Technology Association (ISSTA15)*, Limerick, Ireland, August 2015.

Relevant Experience

Programmer/Developer, **Oct. 2013 - Sept 2014**

Visilit, Event Production Startup Dublin, Ireland

- Front-end developer (JavaScript, HTML, PHP, JQuery) for a web-based application aimed at professional stage productions.
- Principle designer of the application features that are relevant to sound and lighting technicians.

Programming Languages

Main Languages: Python, Matlab, C++.