DR. SCOTT BEVERIDGE BSC(HONS) PGC LTHE

Scientist and educator with over 15 years experience in the fields of audio and performance science. Highly skilled in the design, development, and delivery of educational programs. Established interdisciplinary publication record. Proven track record in research project acquisition and management.

SKILLS

Programming

Python
Matlab
R
C#
Javascript
LaTeX

Visual programming

MaxMSP/PureData
Processing
Blender
Unity
Fusion 360

Software & Tools

Visualisation
(e.g. matplotlib Tableau ...)
Data handling/analysis
(e.g. numpy, scipy, pandas, ...)
Adobe
(Photoshop, Illustrator, Premiere)

Languages

English Native
Español Intermediate (Nivel 8, DELE B1) Universidad EAFIT, Medellín, Colombia.

EDUCATION

2016 **Postgraduate Diploma (PgC)**
Learning and Teaching in Higher Education
Glasgow Caledonian University, Glasgow, Scotland

2011 **Doctorate (Ph.D)**
Music Informatics and Psychology
Glasgow Caledonian University, Glasgow, Scotland

2007 **Undergraduate (B.Sc Hons)**
Audio Technology with Electronics (Classification: First Class)
Glasgow Caledonian University, Glasgow, Scotland

2005 **Diploma (HND)**
Music Technology (Classification: Merit)
Stow College, Glasgow, Scotland

1999 - 1997 **Undergraduate**
Physics and Mathematics
University of Glasgow, Glasgow, Scotland

PROFESSIONAL EXPERIENCE

2024 - Present **Scientific Consultant**
BMC Biomecánica
Medellín, Colombia

Responsibilities
- Design and development of software for movement analysis using Inertial Measurement Units (IMUs).
- Data analysis of IMU data in the domain of occupational safety.

2016 - Present **Scientist**
Institute of Musicians' Medicine, Dresden University of Music, Carl Maria von Weber
Dresden, Germany

Responsibilities
- Management of research studies.
- Maintain and operate hardware systems for measuring biosignals (including Qualisys motion capture system and Noraxon Surface Electromyography system.)
- Design and built airflow sensors for the study of vibrato in wind players.
- Design and develop biofeedback systems for practising musicians.
- Data analysis of biosignals (including feature design and extraction).
- Supervise junior research staff.

2019 - 2024 **Senior Scientist**
Songquito UG
Erlangen, Germany

Responsibilities
- Design and development of music education games.
- Disseminate research project findings.

2018 - 2021	**Scientist II** **Agency for Science, Technology and Research (A*STAR)** *Singapore*
Responsibilities	• Design and perform research studies in the context of stroke rehabilitation. • Design and implementation of software tool for the collection and analysis of eating behaviour data (using accelerometer, gyroscope, and acoustic sensors). • Data analysis for industrial audio classification (motor fault detection). • Data analysis for eating behaviour classification. • Development of a music-based rhythm video game for stroke rehabilitation.
2012 - 2016	**Lecturer (Full Tenured Professor)** **Glasgow Caledonian University** *Glasgow, Scotland*
Responsibilities	• Designed and delivered multiple programs at all undergraduate levels. • Undergraduate (B.Sc) and postgraduate (M.Sc/P.hD) student supervision. • Responsible for > 300 students annually.
2011 - 2012	**Research Fellow** **Fraunhofer Institute for Digital Media Technology IDMT** *Ilmenau, Germany*
Responsibilities	• Developed automatic emotion recognition systems for music. • Supervision of junior research staff.

TEACHING RECORD

Courses developed and delivered:

- Introduction to Audio Systems (Undergraduate Year 1).
- Advanced Games Sound Design (Undergraduate Year 4).
- Audio and Interactivity (Undergraduate Year 3).
- Games Sound Design (Undergraduate Year 3)
- Integrated Project (Undergraduate Year 1)

Courses delivered:

- Visual Software Development (Undergraduate Year 3).
- Audio Processing and Effects (Undergraduate Year 3).
- Audio Analysis and Assessment (Undergraduate Year 3).
- Visual Software Development (Undergraduate Year 3).
- Project and Research Methods (Undergraduate Year 3).
- Software Processes and Practices (Undergraduate Year 3).
- Project Supervision (Undergraduate Year 4).

PUBLICATIONS

Madden, G.B., Herff, S.A., Beveridge, S., & Jabusch, H.C., (2022), 'Trait-dependent and trait-consistent affect regulation in musical practice', Psychology and Music - Interdisciplinary Encounters, October 26-29, 2022, Belgrade, Serbia.

Beveridge, S., Cano, E., & Herff, S. A., (2021) 'The effect of low frequency equalisation on preference and sensorimotor synchronisation in music', *Quarterly Journal of Experimental Psychology*, **75**(3), 475-490.

Buck, B., Beveridge, S., Madden, G.B., & Jabusch, H.C., (2021), 'Effect of expertise on performance quality in a unimanual unaccented drumming task', *Motor Control*, **25**(4), 1-36.

Beveridge, S., Cano, E. & Herff, S. A. (2021), 'No one-size-fits-all: The influence of low-frequency equalisation on preference and sensorimotor synchronisation in music', Poster at the 16th International Conference on Music Perception and Cognition (ICMPC), Sheffield, UK.

Beveridge, S., Buck, B., Herff, S. A., Madden, G.B., & Jabusch, H.C., (2020), 'Expertise-related differences in wrist muscle co-contraction in drummers', *Frontiers in Psychology*, 11:1360.

Beveridge, S., Cano. E., & Herff, S.A., (2020), 'Degradation effects of water immersion on earbud audio quality', Audio Engineering Society Convention 149. Audio Engineering Society, October 21-24, 2020, New York City, NY, USA.

Buck, B., Beveridge, S., Madden, G.B., & Jabusch, H.C., (2019), 'Expertise-related motion patterns and performance precision in unaccented drumming', DGfMM symposium, 15-16 November, 2019, Dresden, Germany.

Cano. E., & Beveridge, S. (2019), 'Microtiming analysis in traditional Shetland Fiddle music', 20th International Society for Music Information Retrieval Conference (ISMIR). November 4-9, 2019, Delft, The Netherlands.

Buck, B., Madden, G.B., Beveridge, S., & Jabusch, H.C., (2019), 'The relationship between motion patterns, performance precision, and expertise in single-handed drumming task', Society for Music Perception and Cognition. August 5-7, 2019, New York City, NY, USA.

Jabusch, H.C., Beveridge, S., Madden, G.B., & Buck. B., (2019), 'Forearm muscle co-contraction in drummers and its relation to expertise, tempo, and performer precision', International Symposium on Performance Science. July 16-20, 2019, Melbourne, Australia.

Beveridge, S., Cano. E., & Agres, K., (2018), 'Rhythmic entrainment for hand rehabilitation using the Leap Motion controller', Late-breaking demo in 19th International Society for Music Information Retrieval Conference (ISMIR). September 23-27, 2018, Paris, France.

Beveridge, S., Buck. B., & Jabusch, H.C., (2018), 'Expertise-related differences in forearm muscle cocontraction in drummers', 2nd International Congress on Musicians Physiotherapy. September 06-08, 2018, Osnabrück, Germany.

Buck. B., Beveridge, S., & Jabusch, H.C., (2018), 'Expertise-related movement patterns in drumming', 2nd International Congress on Musicians Physiotherapy. September 06-08, 2018, Osnabrück, Germany.

Beveridge, & S. Knox, D. (2017), 'Popular music and the role of vocal melody in perceived emotion',*Psychology of Music*, **46**(3), 411-423.

Beveridge, S. (2017), 'Standing Still on the Dancefloor: Emotion, Movement, and Electronic Dance Music', CTM Festival. January 27 - February 05, 2017, Berlin, Germany.

Beveridge, S., Cano, E. & Gibson, R. (2014), 'Performer profiling as a method of examining the transmission of traditional Scottish music', 4th International Workshop on Folk Music Analysis. June 12-13, 2014, Istanbul, Turkey.

Beveridge, S. (2014),'From Faraday to Fourier: teaching audio technology fundamentals using loudspeaker design', Audio Engineering Society Convention 136. April 26-29, 2014, Berlin, Germany.

Beveridge, S. (2013), 'Emotion Recognition in Western Contemporary Music', *Psychomusicology: Music, Mind & Brain* 23(1).

Beveridge, S. (2012), 'A novel approach for time-continuous tension prediction in film soundtracks', in Proceedings of Audio Mostly 2012, 7th Conference on Interaction with Sound, September 26-28, 2012, Corfu, Greece.

Beveridge, S. & Knox, D. (2012), 'A feature survey for emotion classification of Western popular music', Presentation at the 9th International International Symposium on Computer Music Modelling and Retrieval, June 19 - 22, Queen Mary University of London, UK.

Beveridge, S. & Knox, D. (2012), 'Emotion recognition in Western popular music: The role of melodic structure', Presentation at the 12th International Conference on Music Perception and Cognition, July 23-28, Thessaloniki, Greece.

Knox, D., Beveridge, S., Mitchell, L. A. & Macdonald, R. (2011), 'Acoustic analysis and mood classification of pain-relieving music', *Journal of the Acoustical Society of America*, **130**(3), 1–10.

Beveridge, S. & Knox, D. (2011), 'Emotion classification in popular music: An interdisciplinary approach', Presentation at the 10th Digital Music Research Network Workshop, December 22, 2011, Queen Mary University of London,UK.

Beveridge, S. & Knox, D. (2010), 'Emotion classification of western contemporary music: identifying a representative feature set', Poster presentation at the 11th International Conference on Music Perception and Cognition, July 23-28, 2010, Seattle, US.

Beveridge, S. & Knox, D. (2009), 'An exploration of the effect of structural and acoustical features on perceived musical emotion', in Proceedings of Audio Mostly 2009, 4th International Conference on Interaction with Sound, September 02-03, 2009, Glasgow Caledonian University, Scotland.

Knox, D., Cassidy, G., Beveridge, S. & Macdonald, R. (2008), 'Music emotion classification by audio signal analysis: Analysis of self-selected music during game play', in Proceedings of the 10th International Conference on Music Perception and Cognition, 25-29 August 2008, Sapporo, Japan.

Beveridge, S. & Knox, D. (2008), 'A Reflexive Audio Environment Using Genetic Algorithms', in Proceedings of ARTECH 2008 4th International Conference on Digital Arts 7, November 08, Portuguese Catholic University Porto. In ARTECH 2008 Proceedings (ISBN: 978-989-95776-3-3)'.

Beveridge, S. & Knox, D. (2008), 'Control of Sound Environment using Genetic Algorithms', in Proceedings of Audio Mostly 2008, 3rd Conference on Interaction with Sound. October 22-23 2008, Lulea University of Technology, Pitea, Sweden.