DR. SCOTT BEVERIDGE BSC(HONS) PGC LTHE

Investigador y docente con más de 15 años de experiencia en ciencia de datos aplicada al audio y a las bioseñales. Trayectoria investigativa multidisciplinaria respaldada por numerosas publicaciones científicas. Experiencia en investigación aplicada, vinculando la ciencia y la ingeniería para necesidades directas de la industria.

HABILIDADES

Programación

Matlab
Python
R
C#
Javascript
LaTeX

Programación visual

MaxMSP/PureData
Processing
Blender
Unity
SketchUp

Software & herramientas

Visualización
(e.g. matplotlib, ...)
Procesamient de datos
(e.g. numpy, scipy, pandas, ...)
Adobe
(Photoshop, Illustrator, Premiere)

Idiomas

Inglés Nativo
Español Intermedio (Nivel 8, DELE B1) Universidad EAFIT, Medellín, Colombia.

EDUCACIÓN

2016 **Diploma de postgrado (PgC)**
Aprendizaje y enseñanza en educación superior
Glasgow Caledonian University, Glasgow, Escocia

2011 **Doctorado (Ph.D)**
Informática musical y psicología
Glasgow Caledonian University, Glasgow, Escocia

2007 **Pregrado (B.Sc Hons)**
Tecnología de audio y electrónica (Clasificación: Primera clase)
Glasgow Caledonian University, Glasgow, Escocia

2005 **Diploma (HND)**
Tecnología musical (Clasificación: Mérito)
Stow College, Glasgow, Escocia

1999 - 1997 **Pregrado**
Física y matemáticas
University of Glasgow, Glasgow, Escocia

EXPERIENCIA PROFESIONAL

2019 - Actualmente **Científico Principal**
Songquito UG
Erlangen, Alemania

Responsabilidades
- Diseño y desarollo de videojuegos para la educación musical.
- Difusión de resultados.

2016 - Actualmente **Científico Investigador**
Institute of Musicians' Medicine, Dresden
University of Music, Carl Maria von Weber
Dresden, Alemania

Responsabilidades
- Gestión de estudios de investigación.
- Mantenimiento y operación de sistemas de hardware para la medición de bioseñales (incluyendo el sistema de captura de movimiento Qualisys y el sistema de electromiografía de superficie Noraxon.)
- Diseño y construcción de sensores de flujo de aire para el estudio del vibrato en músicos instrumentistas de viento.
- Diseño y desarrollo de sistemas de bio-retroalimentación para músicos instrumentistas.
- Análisis de datos de bioseñales (incluyendo el diseño y extracción de características -feature extraction).
- Supervisión del personal investigación junior.

2018 - 2021	**Científico II** **Agency for Science, Technology and Research (A*STAR)** *Singapur*
Responsabilidades	• Diseño y ejecución de estudios de investigación en el contexto de rehabilitación motora de accidentes cerebrovasculares. • Análisis de datos para clasificación de audio industrial (detección de fallas en motores). • Análisis de datos para la clasificación del comportamiento alimentario. • Desarrollo de videojuegos rítmicos musicales para la rehabilitación motora en accidentes cerebrovasculares.
2012 - 2016	**Profesor Titular** **Glasgow Caledonian University** *Glasgow, Escocia*
Responsabilidades	• Diseño curricular y docencia de múltiples programas de audio en todos los niveles de pregrado. • Supervisión de estudiantes de pregrado (B.Sc) y posgrado (M.Sc/P.hD). • Responsable de > 300 estudiantes anualmente.
2011 - 2012	**Investigador** **Fraunhofer Institute for Digital Media Technology IDMT** *Ilmenau, Alemania*
Responsabilidades	• Desarrollo de algoritmos para el reconocimeinto automático de las emociones en la música. • Supervisión de personal investigador junior.

EXPERIENCIA DOCENTE

Cursos desarrollados e impartidos:

- Introduction to Audio Systems.
- Advanced Games Sound Design.
- Audio and Interactivity.
- Games Sound Design.
- Integrated Project.

Cursos impartidos:

- Visual Software Development.
- Audio Processing and Effects.
- Audio Analysis and Assessment.
- Visual Software Development.
- Project and Research Methods.
- Software Processes and Practices.
- Project Supervision.

PUBLICACIÓNES

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.