Cárthach Ó Nuanáin

Music Technology Group
Universitat Pompeu Fabra
Roc Boronat 08540
Barcelona, Spain

Phone: 34-653-354801
email: carthach.onuanain@upf.edu
URL: http://www.carthach.tk
Born: January 13, 1985 — Cork, Ireland

Current position

Ph.D. Researcher, Music Technology Group, Universitat Pompeu Fabra, Barcelona.

Skills

Programming: C/C++, Python, Max/Pd
Frameworks/Libraries: JUCE, OpenFrameworks, Numpy
Audio: Pro Tools (PT201 Certified), Ableton, Sound Forge

Languages (in order of competence)

English, Irish, Spanish

Education

2013 - Ongoing	PH.D. in Computer Music, Universitat Pompeu Fabra
2009	M.PHIL. in Music & Media Technologies (First Class Honours), Trinity College Dublin
2007	B.Sc. in Computer Science (First Class Honours), University College Cork

Work Experience

2010-2013	*Audio Producer/Engineer* - Microsoft Ireland, Dublin

- Managed audio localisation on games like Halo, Forza and Gears of War
- Engineer on car recording sessions at Ferrari and Bugatti factories.
- Sound design and effects processing for Xbox Live Arcade

2010	*Software Developer* - Sensormind Ltd. Dublin

- Automation tools in Visual Basic

2007-2008	*Software Engineer* - Analog Devices, Limerick

- Designed the Correlation Tool, a software tool for the yield analysis of semiconductors
- Tools: Perl, Tcl/Tk, XSL, CVS

Teaching Experience

2016-017   *Lecturer* - Universitat Pompeu Fabra

- Undergraduate - Digital Synthesis and Real-time Audio Programming in Pd (Spanish/English)
- Masters - Digital Synthesis, Effects and Musical Instruments

2016   *Teaching Assistant* - Universitat Pompeu Fabra

- Undergraduate classes in C programming fundamentals (in Spanish)

2009-2014   *Lecturer* - Pulse Recording College, Dublin

- Courses and workshops in Interactive Programming, Multimedia and Web Design

2005   *Lab Tutor* - University College Cork

- Supervised lab sessions for 1st years in Internet Computing.

Awards & Scholarships

2016   Best Paper at New Interfaces for Musical Interaction Conference
2015   Best Hack Award at Sónar Music Hackday
2013   DTIC Ph.D. Fellowship, Universitat Pompeu Fabra
2007   Title of College Scholar, University College Cork
2004   Title of College Scholar, University College Cork

Publications

Journal Articles

Forthcoming   Ó Nuanáin, C., Herrera, P. & Jordà, S. (2017) Rhythmic Concatenative Synthesis for Electronic Music: Techniques, Implementation, and Evaluation *Computer Music Journal*

2014   Vogl, R.,Leimeister, M, Ó Nuanáin, C., Jordà S., Hlatky M., Knees P. (2016) "An Intelligent Interface for Drum Pattern Variation and Comparative Evaluation of Algorithms", *Journal of the Audio Engineering Society: Special Issue on Intelligent Audio Processing, Semantics and Interaction*

Conference Papers

2014   Ó Nuanáin, C, O'Sullivan, L (2014), "Real-time algorithmic composition with a tabletop musical interface: a first prototype and performance", *Proceedings of the 7th Audio Mostly Conference*

2015   Ó Nuanáin, C., Herrera, P., & Jordà, S. (2015). Target-based rhythmic pattern generation and variation with genetic algorithms. *Proceedings of the 12th Sound and Music Computing Conference.*

2016   Ó Nuanáin, C., Jordà, S., & Herrera, P. (2016) An Interactive Software Instrument for Real-time Rhythmic Concatenative Synthesis. *Proceedings of the International Conference on New Interfaces for Musical Expression*

2016   Ó Nuanáin, C., Herrera, P. & Jordà, S. (2016) An Evaluation Framework and Case Study for Rhythmic Concatenative Synthesis *Proceedings of the International Symposium on Music Information Retrieval*

2016   Ó Nuanáin, C., Jordà, S., *&* Herrera, P. (2016) Towards User-Tailored Creative Applications of Concatenative Synthesis in Electronic Dance Music *4th International Workshop on Musical Metacreation*

Academic Reviewer

2017   International Conference of Students of Systematic Musicology - Conference Papers
2017   New Interfaces for Musical Expression - Conference Papers *&* Demos
2016   New Interfaces for Musical Expression - Conference Papers *&* Demos
2016   International Society for Music Information Retrieval - Conference Papers
2015   International Society for Music Information Retrieval - Conference Papers
2014   International Society for Music Information Retrieval - Conference Papers

Artistic Reviewer

2017   New Interfaces for Musical Expression - Concerts *&* Installations
2016   New Interfaces for Musical Expression - Installations

Selected Artistic Works

2016   *Untitled* - Three or more synthesiser - w/ Barcelona Laptop Orchestra, NIU, Barcelona
2014   *Dissolve* - Fixed media - Radiophrenia 2016, United Kingdown (Scotland)
2016   *Cúige (Province)* - Multichannel soundscape - Sonic Environments, Brisbane, Australia
2015   *The Collapse of Histrionics* - Fiddle and electronics - Sound and Music Conference, Ireland
2013   *Codes 2.0* - Mapping *&* Interaction Design w/ Midas Spaces, Hong Kong
2009   *ReactAct* - Live Real-time Composition - Darklight Film Festival, Dublin
2009   *Bitstream Tornado* - Fixed Media - Dublin Electronic Arts Festival Artist Compilation
2009   *Fresh Intelligence* - Live Real-time Composition - Samuel Beckett Theatre, Dublin, Ireland

References (Upon Request)

Dr. Sergi Jordà
Associate Professor
Music Technology Group
Universitat Pompeu Fabra
Barcelona, Spain

Mr. Jason Shirley
Senior Program Manager
Microsoft Corporation
Redmond, USA