

BRIAN CULLEN

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briancullenav.com

Education

2005 – 2010. Ph.D. (Electro Acoustic Composition). Queen's University, Belfast, Northern Ireland.

- Worked in a studio environment on experimental sound and image techniques.
- Produced three audio-visual computer animations exploring spectral separation, sound spatialization, screen and speaker placement, video and audio recording, compositing, and production techniques.
- Thesis: A Portfolio of Audio-visual Compositions for the New Media Everyday - related my practice to New Media Theory, Embodiment, and Everyday Studies.

2002 – 2004. M.Phil. (Music and Media Technology). Trinity College, Dublin, Ireland.

- Maths, Max/MSP, Music Cognition & Design, Music Theory, Programming, Psycho-Acoustics, Studio techniques, Music & Image Production, History of Electroacoustic Music, Interactive Design.
- Numerous projects on the role of audio in areas such as web design and video production.
- Thesis: Abstraction. Discusses abstraction in relation to perception of audio-visual events.

1996 – 2000. B.A. (Fine Art). Printmaking and Video Installation. National College of Art and Design, Dublin, Ireland.

- Pre-degree show at Civic Offices Dublin and Degree show exhibition at the R.H.A. Gallery Dublin.
- Art History, Fashion, Film Studies, Gender Studies, Life Drawing, Media Studies, Painting, Photography, Sculpture, Sociology.
- Awarded £1000 purchase prize by Dakota Print and Packaging.
- Exhibited at the Young Irish Printmakers Exhibition at the Jyvaskyla Centre for Printmaking, Finland.
- Thesis: Foucault and Consumer Choice.

Lecturing and Tutorials

2015. Sessional lecturer. Digital Imaging. Stratford Campus, University of Waterloo, Waterloo, Ontario. Jan - Apr.

- Web basics, web development and design process, coding (HTML CSS), web design, copyright, information architecture, wireframing, responsive design, and basic scripting.
- Designed lectures and introductory coding tutorials (HTML, CSS, Javascript).
- Corrected course work, written and practical, using the online tool LEARN.
- Provided detailed student feedback.

2014. Sessional lecturer. Digital Media Design and Production. Stratford Campus, University of Waterloo, Waterloo, Ontario. Sept 2014 - Dec 2015.

- Principles of design, Gestalt laws, color theory, photography, digital imagery, remix culture, vector art, infographics (Edward Tufte), typeface, animation, glitch art, and compositing.
- Designed lectures and software tutorials (Photoshop, Illustrator, After Effects).
- Contributed to meetings guiding the development of the Engage Lab technology facility.
- Corrected written and practical work using the online tool LEARN.
- Provided detailed feedback to each student.

2013. Sessional lecturer. Sound Design for Games. UOIT, Oshawa, Ontario. Jan - Apr.

- Topics included the physics of sound, auditory perception, digital editing, audio-visual design principles, and theory.
- Coordinating materials and exams using the online tool Blackboard.
- Design of exams, correction of student material and supervision of students' progress.

2009. Lecturer. 3D Modeling/Animation. Queen's University, Belfast, Northern Ireland. Feb - May.

- 3D modeling/animation for game design students in the Computer Science Department.
- Introduced to Cinema 4D (computer animation software).
- Assessed and supervised the production of the students' final projects.
- Corrected written assignments, examined oral presentations and group performances.
- Prepared students' results for approval by an external examiner.

2006 - 2009. Lecturer. Sound Design. Sonic Arts Research Centre (SARC) Queen's University, Belfast, Northern Ireland. Sept - Jan.

- Designed course lectures and assignments, introduced students to relevant software/hardware technologies.
- Presented full lectures in Sound Design theory.
- Corrected, assessed, and provided feedback course work both written and practical.

2012 & 2010. Lecturer. Sound Design. University of Waterloo, Waterloo, Ontario. May.

- Guest lecture for the Sound as Communication: Sonic Interaction Design course.
- Sound/music design in film and the potential of Digital Signal Processing in our emotional interpretation of audiovisual events.
- Introductory tutorial focused on sound editing and manipulation using Audacity.

2010. Lecturer. Sound Design. Trinity College, Dublin, Ireland. Jan.

- Guest lecture for the Interactive Digital Media Design course.
- Introduction to sound design in film.
- Presented my audiovisual compositions and studies.
- Discussed the creation and relevance of the compositions in an open 'question and answer' session.

Training

2014 - 2015 Lynda.com introductory courses during sessional lecturer position at Stratford Campus, Ontario, Canada.

- Creating a Responsive Web Design, CSS Core Concepts, CSS Fundamentals, Foundations of Programming Fundamentals, Foundations of UX Information Architecture, HTML Essential Training, Introducing the JavaScript Language, iOS8 iPhone and iPad Essential Training, iOS App Development with Swift Essential Training, JavaScript Essential Training, Swift Programming Language First Look, UX Design Tools Balsamiq Mockups, Web Technology Fundamentals.

2013. Teaching Orientation and Training. Ontario Tech University, Ontario, Canada. Jan.

- One day introduction to teaching tools and techniques

2011. Postdoctoral Teaching Development Series. University of Waterloo, Ontario. Jun.

- Four days teacher development for postdoctoral fellows in How Students Learn, Teaching Philosophy, Interactive Teaching, Motivating Students, Course Design.

2005 - 2006. Post Grad Research Training. Queen's University, Belfast, Northern Ireland. Nov - Mar.

- Ten days of post graduate research training in subjects such as Effective Mentoring, Personal Effectiveness, Foundations of Social Scientific Inquiry for Humanities, Project Management.

Career Experience and Employment

2021 – 2023. Worked alongside publisher tinyBuild to coordinate release on console (PS4, Xbox, Switch).

- Graphic, code and art optimizations, online work partnership with porting professionals, playtesting and bug reporting/fixing.

2018 - 2021. Completed full production for videogame *Mayhem in Single Valley*.

- Game design and production, hiring, online team and assets management, securing funding, contract negotiation between funders/publishers/Fluxscopic Ltd., marketing and promotion, attending conferences, business networking, product testing and development based on user feedback, post release game support.

2016. Completed development phase for videogame *Mayhem in Single Valley*.

- Full game demo, full story treatment, design document, FMOD project, HD trailer, sound effects library, teaser poster, official website, social media/marketing.
- Create art assets, music, and coded for the full game demo.
- Researched the consumer landscape, numerous tools, design choices, and production techniques.

2015. Recipient of a Canadian Media Fund (Experimental Stream) through Telefilm Canada.

- Wrote funding proposal based on previous research into experimental videogames.
- Collaborating with Industry Corp., a local videogames studio to develop the experimental videogame.
- Created game design document and visual mock-ups.

2014. Incorporation of Fluxscopic Ltd.

- Incorporated Fluxscopic Ltd. to develop experimental videogame.
- Maintain contracts, forms, minutes, resolutions, banking and tax responsibilities.

2012 – 2013. IMMERSE Post-Doctoral Fellow. Games Institute at University of Waterloo, Ontario, Canada.

- Designed an experimental videogame based on sound.
- Sound design using FMOD game audio design software.
- Programming in JavaScript.
- Designed visual assets and animations in Photoshop.
- Completed paper about creative practice and findings.

2011 – 2012. Post-Doctoral Research Assistant. Multi-modal stereoscopic 3D. Ontario Tech University. Canada. May - Sept.

- Designed a series of studies that examine spatial audio and stereoscopic 3D in videogames.
- Programmed in Unity 3D to produce controllable and recordable gaming environments.
- Applied for and received full ethics clearance.
- Supervised undergraduate student with running of experiments.
- Conducted experiments and statistical analysis of data.
- Completed final reports and academic papers.

2010 – 2011. Post-Doctoral Research Assistant. Animation/Sound Designer. University of Waterloo, Ontario, Canada. Jun - May.

- Designed four educational computer animations for problem gambling research at the department of Psychology.
- Designed Imagery for a fake slot machine cabinet to be used for psychology experiments
- Worked creatively and dynamically in a team to translate and disseminate research knowledge.
- Role requires problem solving and project management skills that must be executed within a time-restricted environment.
- Worked as a research assistant for a sound study relating to gambling addiction.

2009. Animator. Queens University, Belfast, Northern Ireland. Sep - Nov.

- Designed audio driven visuals for *The Illusion of Control* (commissioned by the Arts Council of Northern Ireland, performed on 22nd of November 2009 as part of Sonorities Festival).
- Collaborated with Uilleann piper Ivan Goff, (New York), composer/digital artist Pedro Rebelo (SARC, Belfast), and saxophonist/improviser Franziska Schroeder (SARC, Belfast).

2006. Animator and Sound Designer. Channel 4 Television, Northern Ireland. Dec.

- Recorded, edited and mastered an informational Podcast (Commissioned by Channel 4) for SARC Queen's University Belfast containing interviews, imagery, sounds and effects.
- The podcast was used for Channel 4 Radio Online and the Queen's University website.

Creative Output

2024. Second feature-length sci-fi screenplay *Loco Parentis*. Re-writes and competitions submissions.

2024. Designed personal professional portfolio website.

2023 – Present/Works in progress. Game and funding proposal design for video games *Oweynagat* and *Ammonite*.

2021 – 2023. Worked alongside publisher tinyBuild to coordinate release on console (PS4, Xbox, Switch).

2018 - 2021. Completed full production for video game *Mayhem in Single Valley*. Post release game support.

2018. **B. Cullen**, *Thrice Removed*. Transitions Concert. CCRMA Stage, The Knoll, Stanford University, California. Oct 19.

2017. Funding Proposal. Region of Waterloo Arts Funding. Proposal to create an audio-visual composition that you interact through a first-person perspective video game. Concept included a local exhibit of the game that the public gets to play and hear. Withdrew from second round due to receiving funding for another project elsewhere.

2016. Complete development phase for videogame *Mayhem in Single Valley*.

2015. Videogame *You Are Not a Banana* green lit on the Steam distribution site.

2014. Released experimental videogame *You Are Not a Banana* on Desura. Invited to be included in Indie Royale Debut Bundle 12, Flying Bundle, and Lazy Guys Bundle.

2012. Feature-length sci-fi screenplay *Upgrade* made it into the second round (Top 10% of 6500 entries) of the Austin film festival screenplay competition. Won special merit award from the Los Angeles Cinema Festival of Hollywood (Spring).

2012. Sound design for videogames. Industry Corp. Videogames Studio, Kitchener, Ontario.

2012. Voice actor. *Small Sacrifices* animated short film by Studio Moraine. Underwire Film Festival. London UK.

2010 – 2011. Animator and Sound Designer. University of Waterloo, Waterloo, Ontario. Jun - May.

- Designed four educational computer animations for the gambling research team.

2011. **B. Cullen**, *A Natural Balance*, *Pixel Parasites*, *Thrice Removed*. CMC 2011, New Music Marathon, The Contemporary Music Centre, University of Ulster, Northern Ireland. Apr 15. All-day video screening.

2010. **B. Cullen**, *Pixel Parasites*, *Thrice Removed*. *Mythes, Légendes, Parasite Pixels*. Studio E. Ansermet Maison de la Radio Genève Switzerland. Oct 17. Concert.

2010. **B. Cullen**, *A Natural Balance*, *Pixel Parasites*, *Thrice Removed*. La Plantation Arts Centre Beijing and The Communication University of China. Compositions presented by Brian Bridges at the invitation of Dr. Benoit Granier from the Central Conservatory of Music (Computer Music Department) and Peking University. Mar. Concerts and presentations.

2009. **B. Cullen**, I. Goff, P. Rebelo, F. Schroeder. *Illusion of Control*. Sonorities Festival of Contemporary Music, SARC Belfast. Nov 22. Live Performance.

- Audio driven visuals for *The Illusion of Control* performed at the Sonorities Festival.

2009. **B. Cullen**, A Natural Balance. Sonic Intermedia: SARC, Ars Electronica Center, Linz, Austria. Oct 19. Concert.
2009. **B. Cullen**, A Natural Balance. Salão Leopoldo Miguez da Escola de Música da UFRJ, Rio de Janeiro, Brasil. Apr 4. Concert.
2008. **B. Cullen**, A Natural Balance. QFT Short Shots Competition, Queen’s Film Theatre, Belfast, Northern Ireland. Dec 1. Short film screening.
2008. Golden Thread Gallery: SPLATTERED, September.
- Soundscape for Carlos Llavata ‘Bodyscapes’ performance and music for Paint Bombing Event with Belfast youth. Aug - Sept.
2008. **B. Cullen**, Thrice Removed. ICMC 2008, The International Computer Music Convention, The Sonic Arts Research Centre, Queen’s University Belfast, Northern Ireland. Aug 25. Concert.
2008. **B. Cullen**. Thrice Removed. Keynote speaker Trevor Wishart spoke of Thrice Removed as a highlight of the Convention (Array: the journal of the ICMA, 2009 – 2010, ICMC 2008 Keynote Address).
2008. **B. Cullen**. Thrice Removed. Part of the Aesthetics Electroacoustic Music curriculum at the University of Wisconsin-Milwaukee.
2008. **B. Cullen**, Pixel Parasites. Center for Computer Research in Music and Acoustics, Stanford University, California. Apr 4. Concert.
2008. **B. Cullen**, Pixel Parasites. Center for New Music and Audio Technologies, University of California at Berkeley, California. Apr 2. Concert.
2008. **B. Cullen**, A Natural Balance, Pixel Parasites. Escuela de Musica de la Universidad de Hermosillo, the Conservatorio de las Rosas, Centro Mexicano para la Musica y las Artes Sonoras and the Sala de Arte Publico Siqueiros, Mexico. Mar - Apr. Concerts and presentations.
2007. **B. Cullen**, Pixel Parasites. Electroacoustic WALES. The University Bangor, Wales, United Kingdom. Nov 11. Concert.
2007. **B. Cullen**, Pixel Parasites. Sixteenth Annual Florida Electroacoustic Music Festival, Philips Center for performing arts Black Box theater, University of Florida, Gainesville, Florida. Apr 14. Concert.
2004. By Design Concert. Samuel Beckett Theatre, Trinity College, Dublin.
- Live experimental composition created using the sounds and imagery of an automatic fan.
2004. Repeater & C4 Records, Bodkins & Fraisers pubs Dublin. May.
- Collaborative performance with Keith O’Brien involving a DJ set and live electronic manipulation of the music using Max/MSP.
2004. Data: Event 17, Stag’s Head pub, Dame Lane Dublin. Mar.
- Presented two audio-visual compositions and performed a live electronic set using the sounds of the immediate environment.
2003. Litmus Concert, The Printing House, Trinity College Dublin.
- Real-time music performance accompanied by Enda Bates on guitar.
2003. LazyBird, International Bar Dublin. Oct.
- One hour live solo electronic music performance.
2003. Kai Electronic Ensemble, Project Arts Centre, Dublin. Oct.
- Electronic performance with Kai Electronic Ensemble of Jazz and electronic Fusion.

Publications

2016. **B. Cullen**, K. Collins, A. Hogue, and B. Kapralos. Sound and stereoscopic 3D: Examining the effects of sound on depth perception in stereoscopic 3D. In Proceedings of Information, Intelligence, Systems and Applications (IISA 2016), Chalkidiki, Greece. July 13-15, 2016 (**Winner of Best Student Paper Award**).

2013. **B. Cullen**, D. Galperin, K. Collins, A. Hogue, and B. Kapralos. The Effects of 5.1 Sound Presentations on the Perception of Stereoscopic Imagery in Video Games. Stereoscopic Displays and Applications XXIV, San Francisco, California. Feb 3 – 7, 2013.

2012. **B. Cullen**, D. Galperin, K. Collins, B. Kapralos, and A. Hogue. The effects of audio on depth perception in S3D games. Audio Mostly 2012, Corfu, Greece. Sept 26 – 28.

Presentations

2015. **B. Cullen**. *Mayhem in Single Valley*. Video game conference presentation. University of Waterloo, Ontario, Nov 27.

2013. **B. Cullen**. *You Are Not a Banana*. Games Institute videogame presentation, University of Waterloo, Ontario. Dec 10.

2013. **B. Cullen**. Sound and Stereoscopic 3D: Five experiments examining the effects of sound on depth in stereoscopic 3D. 2nd Toronto International Stereoscopic 3D Conference, Toronto, Ontario. Sept 22.

2013. **B. Cullen**, Sharing Personal Narratives through Gaming. IMMERSE Presentation Day, University of Waterloo, Ontario. May 27.

2012. **B. Cullen**, D. Galperin, K. Collins, B. Kapralos, and A. Hogue. The effects of audio on depth perception in S3D games. Audio Mostly 2012, Corfu, Greece. Sept 26 – 28.

2012. **B. Cullen**, K. Collins, A. Hogue, and B. Kapralos. The effects of multi-channel audio on the perception of stereoscopic 3D. Living Stereo: History, Culture, Multichannel Sound. Ottawa, Canada. Mar 9 – 11. Conference presentation.

2011. **B. Cullen**. S3D, Audio and Depth Perception. Project Bar-B-Q: Interactive Audio Think Tank. Oct 7 – 10. Conference Presentation.

2011. C. Jensen, M.J. Dixon, K.A. Harrigan, M. Jarick, **B. Cullen**, J.A. Fugelsang. The Alberta Gaming Research Institute Annual Conference, Banff, Alberta. Apr 7 – 9. Poster and animations presentation.

2011. C. Jensen, M.J. Dixon, K.A. Harrigan, M. Jarick, **B. Cullen**, J.A. Fugelsang. Winning while losing? Misremembering losses as wins in multiline slot machine games. The 21st Annual Meeting of the Canadian Society for Brain, Behaviour, and Cognitive Science (CSBBCS), Winnipeg, Manitoba. Jun. Poster presentation.

Non-Refereed Contributions

2012. **B. Cullen**. Audio-visual Interactions and Video Games: Five Experiments Examining the Effects of Sound on Stereoscopic 3D. 3D Interactive games Ontario 3D (iGO3D). Ontario Media Development Corporation, Entertainment & Creative Cluster Partnership Funds. Research Report.

2011. D. Battino, P. Brown, **B. Cullen**, D. Rowe, W. Wolcott, Making Spatialization work within constraints of new form factors. Report on state of audio in for use with new media formats, and a proposal for a new codec that is both dynamic and user aware. Project Bar-B-Q: Interactive Audio Think Tank. Oct 7 – 10. Conference report.

Computer Experience

Mac and PC literate, Jira, GitHub Desktop, Slack, Discord, Unity, FMOD, Audacity, Cinema 4D, Cubase/Nuendo, Microsoft Office, Final Draft, Scrivener, Final Cut Pro, FCPX, Adobe creative Suite, Pro Tools, Sound Forge, Max/MSP, WordPress, and more.

Service to The Profession

2024. 20 Years of SARC - Concert. Alumni talk and composition performance. Belfast, Northern Ireland. Apr 11.

- Awarded Alumni and Travel Bursary

2024. Playful Sessions. Inter Arts Matrix. Video game talk and workshop. Kitchener, Ontario. Jan 28.

2019. X-Camera. Inter Arts Matrix. Artist Talk. Kitchener, Ontario, Canada. Jan 28.

2017. Game Design Fundamentals: Story, Imagery and Animation. Workshop. Kitchener Public Library, Ontario Canada. Oct 31.

2017. Interview with GamesTV magazine. Article celebrating the 25th anniversary of Zelda: A Link to the Past that includes interviews with game designers whose work builds on the classic RPG.

2016. Gamasutra, feature post. The Darkside and the Light – The Anatomy of a Room in *Mayhem in Single Valley*. May 16.

2016. IGDA chapter event. Presentation on my experiences developing *Mayhem in Single Valley*. Waterloo, Ontario. Feb 5.

2015. Presentation of *Mayhem in Single Valley* to the IMMERSe partners and the Games Institute, Waterloo, Ontario. Nov 27.

2014. Paper reviewer for the first IEEE-Games, Entertainment and Media Conference in Toronto, Ontario. Oct.

2012. Paper reviewer for Journal 'Advances in Human-Computer Interaction'.

2011 – Present. UW Games Institute member.

2009. Discovering Queen's and Moving on Music, Sept.

- Three presentations for 70 GCSE students, introducing music technology courses and facilities available at Queen's University Belfast.

2005. The Art of Decision interactive multimedia exhibition, Apr - May.

- Worked in various roles within a large group for *The Art of Decision* interactive multimedia exhibition.

2000 – 2001. Member of the Black Church Print Studio, Dublin.

2000 – 2001. Sold/exhibited prints at Black Church and Lemon St. Galleries, Dublin.