

Kirsty Keatch

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Creative programmer and sound artist exploring the design of playful interactive sound and game systems including AR and VR experiences.

Employment

January 2018 - Present : ustwo games -Unity Developer

- Helped port Land's End to Oculus Go. Redesigned and implemented an in game photo system using the 3DoF controller while maintaining backwards compatibility with GearVR.
- Prototyping and concept development, collaborating with game designers and artists.

September 2016 - April 2017 : Skoogmusic Ltd - Game Developer

- Prototyped musical educational games in Unity for use with the Skoog controller. Encouraging accessibility in gaming and music.
- Created an interactive cut scene using three.js for the Skoog Swift Playground, launched at WWDC 2017.

Spring 2016: University of Edinburgh - Tutor

- Unity, FMOD + Pure Data tutor for the Interactive Sound Environments Masters course, introducing students to dynamic sound design implementation techniques and building procedural sound systems.

2014 : Krotos Ltd - iOS Prototyper

- Developed an iOS application version of the Dehumaniser vocal effects processor using Pure Data and Objective-C.

2010 - 2013 : Warner Music Spain - Artist

- Wrote, performed and produced album, "Binary Sun" in collaboration with DJ Jose Padilla for Warner Music Spain.
- Managed the project budget and produced artwork and music videos for the album and its singles.
- Single "Dragonflies" reached top 10 in the MTV Spain Chart.

Independent Game Projects

Untitled VR game - (in progress) : An experimental room scale VR party game for VIVE. Controllers track the player's hips instead of their hands to dance through holes in a series of moving walls. Exhibited at V&A (London) Friday Lates and Arcadia (Dundee) games festival in September 2017.

Fit In - 2017 : AR game for iOS where the player dances their way through a series of moving walls. The character must rotate and position themselves to fit through cut out shapes in each wall, using the device's gyroscope and onscreen controls. Featured on the App Store's "Get Started with AR" section. Made using Unity, Blender and ARKit.

Hedra - 2015 : A one touch infinite scroller for iOS and Android. The player rotates 3D shapes to align them with a series of platforms to land, coloured face down against the clock. The game has been included in multiple game showcases across Scotland, Germany and the United States. Made using Unity, Blender and FMOD.

Katakata - 2014 : An interactive kinetic sound sculpture based on a Jacob's Ladder toy, using a web app to allow smartphone users to trigger movement and manipulate the sculpture's sound in real-time. Made using Max/MSP, Arduino, Node.js, web-osc.

- Edinburgh International Science Festival, National Museum of Scotland, Edinburgh, April 2017
- Blank Arcade, Hannah Maclure Centre, Dundee, August - October 2016
- Gap In The Air: Festival of Sonic Art, Talbot Rice Gallery, Edinburgh, January 2015

Education

2014 - 2016 : MScR Sound Design by Research with Distinction - University of Edinburgh - supervised by Martin Parker

- Playing With Code: Mobile Play for Dynamic Audio - A portfolio of game based interactions with dynamic audio for mobile devices.
- Interactive Sound Environments - A collaborative work developing 3D game environments using Unity, Blender, FMOD and procedural sound generated in Pure Data.
- Introduction to Interaction - Theme based Flash and HTML5 projects based upon own theme of Pictish sites of interest.
- Research Methods - Reflection in and on Creative Practice.
- Music on Screen - "More to Hear than Meets the Eye " - Video essay analysis of the use of dynamic audio in, Monument Valley.

2010 - 2014 : BMus Music Technology - First Class Honours - University of Edinburgh

- Music Technology Project - Exploring rule based composition, I constructed an interactive peg solitaire board designed to control an automated monochord using Arduino. Sounds were triggered and manipulated in real-time using Pure Data on a Raspberry pi.
- Electroacoustic Composition - Portfolio of music concrete works with live multichannel diffusions, and web hosted binaural sound walks documenting the changing soundscapes of Edinburgh's coastal towns.
- Film Music Pre and Post 1950 - Live electroacoustic improvisation to Man Ray's Etoile de Mer and analysis of soundtracks and sound design of films including Jacques Tati's Jour de Fete.
- Realtime Computer Systems for Music (Max MSP) - Building game driven free improvisation structuring systems using bespoke hardware and realtime sound analysis.
- Algorithmic Composition and Signal Processing (Common Lisp)

Technical Expertise

- Software: Unity, FMOD, Wwise, Pure Data, Max/MSP, Flash, Blender, Xcode, Pro Tools, Logic.
- Programming: C#, HLSL, Javascript, C, Swift, Objective - C, HTML5, CSS3, Common Lisp, Processing.
- Experience developing for mobile, VR, ARKit, micro controllers and embedded systems using Arduino and Raspberry Pi.

Presentations

- April 2017 - Dialogues - When Art Meets Technology, Edinburgh International Science Festival, Edinburgh
- March 2017 - GDC Roundup - IGDA Scotland, Dundee
- September 2016 - Artists Talk Hannah Maclure Centre, Dundee

Workshops

- Building balanced contact microphones and hydrophones, Room to Play, Tinderbox Orchestra, November 2016
- Integrating Pure Data in Unity, University of Edinburgh, March 2016.
 - Led a group of 20 sound design students through the importance of procedural techniques in game audio and the process of integrating Pure Data patches into Unity projects.

Conferences

- An Exploration of Peg Solitaire as a Compositional Tool - Poster presentation at the Conference on New Interfaces for Musical Expression, London, 2014.
- Re-Signing Sound for Interactive Audio Installations - Presentation at The New Lot - ESALA 2014 Conference, Edinburgh, 2015.

Awards

- 2018 - BAFTA Crew games participant
- 2017 - IGDA Women In Games Ambassador - Received a scholarship to attend GDC in San Francisco.
- 2016 - IGDA Scholar - Received a scholarship to attend GDC Europe and Gamescom.
- 2009 - Winner Make it Break it Award - national songwriting competition in association with EMI, LIPA and XFM.

Other

Languages: English - Native, Spanish - Fluent

Full clean driver's license

Keen indoor gardener and succulent propagator