

## Employment:

Jan 2009-March 2016: Systems Administrator/Research Programmer - [Music Department](#), University of York

- Software development for research projects and collaborations such as:
  - [Focusrite Red Plug-in Suite](#). Contracted to realise new products (Red 2 EQ and Red 3 Compressor) as cross platform VST2, VST3, AAX, and AU plugins.
  - [The Morning Line](#). International project featuring 48 channel multi-spatial sound system. Installed in Seville, Istanbul, Vienna, ZKM Karlsruhe.
  - [TBA21 Academy](#). Ambisonic sound system and software solutions for a series of composer/scientist residencies and domestic audio needs aboard a research vessel.
  - [New Aesthetics in Computer Music \(NACM\)](#). Custom software for visiting artists.
- Teaching:
  - MA Music Production (2014-2016): Audio Signals module (using Reaper JesuSonic).
  - MA Music Technology (2009-2013) Digital Audio Programming and Interfacing Modules. Supervising ISM projects. Content including DSP, Audio Synthesis, Interfacing technology, MaxMSP & C/C++ programming.
- Administration of department's Linux/Windows servers and studio computer systems.
- Departmental Computing Officer, Departmental Safety Officer.

Nov 2006-Dec 2008: Research Assistant at [ICSRiM](#) - Interdisciplinary Centre for Scientific Research in Music, University of Leeds

- Working on [i-Maestro](#), an EC-IST research project on technology enhanced education for music. Focus on Violin/Cello gesture analysis with VICON motion capture and multi-modal feedback. Responsible for research, software development and presentations at international conferences (NIME, ICAD, ICMC).
- 2007/2008: Teaching Assistant on undergraduate and postgraduate Music Technology modules. Content including Audio Synthesis, C++ programming.

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## Freelance and Commercial Software Projects:

2015 - Developed [VPROM](#) Linn LM-1 drum machine emulation for AlyJamesLab. (C++ rewrite)

2013-present: Designed and developed [VirtualCZ](#) synth (under exclusive license to Plugin Boutique) - a faithful emulation of the CASIO CZ series hardware from the 1980s. Voted MusicTech magazine's [Software Synthesiser of the Year 2014](#). Reviewed by Gordon Reid in Sound on Sound (May 2015). Awarded 10/10 in MusicTech review (Nov 2014), 8/10 and a "Value Award" from Computer Music (March 2015).

2011-present: Developed [Endless Series v3](#) - a unique synthesis and effect plugin based on the Shepard Tone auditory illusion. Used by many musicians and film sound designers. Also [available on the Mac App Store](#). See [review at Designing Sound](#).

2011-present: Developed [WDL-OL](#): Significantly enhanced version of Cockos Inc's WDL/IPlug - Open-Source C++ framework for targeting multiple audio plug-in platforms on different operating systems. Contributions include: Build-system, x64/Standalone/RTAS/VST3/AAX support plus numerous bug fixes and improvements.

2011: Developed [Kasio-M4L](#) for Ableton AG: Max4Live plug-in emulation of the Casio CZ series Phase Distortion synthesiser.

2008-present: Developed pMix application. Winner of the second prize in the [LOMUS 2008](#) international music software competition. [Available on the Mac App Store](#). Version 2 rewritten in C++/JUICE and a runner up in 2015 FAUST software competition.

2004-2008: Developed custom externals in C/C++ for MaxMSP, PureData and Synthedit.

2003: Started developing Audio Plugins using Synthedit, which were well regarded and featured in several magazines.

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### **Other Professional Experience:**

2005: INA GRM (Institute National de la Audiovisuel - Groupe de Recherches Musicales), Paris, France. Production team: Studio and concert technician/sound engineering, composer's assistant. (5 Months)

2015: GRAME, Lyon, France. Research residency - Developing pMix and JUICE FAUST LLVM module (2 Weeks)

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### **Education and Qualifications:**

2006: Middlesex University. Bachelor of Arts with First Class Honours in Sonic Arts.

2002-2005: University of Huddersfield. Studied 3/4 years BA Music Technology, including work placement year.

2001 - Grade 8 Classical Guitar (Trinity)

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### **Skills and Programming Experience:**

Win/OSX software development with a focus on desktop audio/plugin-ins:  
C/C++, FAUST, IPLUG, JUICE, VST2, VST3, AudioUnit, AAX, RTAS, WebAudio, GUI, Python, Tex, shell scripting. Git/Svn/Mercurial version control, debugging.

Interfacing and programming for digital-media projects: Micro-controllers, OpenGL, Spatial audio. Max/Jitter, PD, SuperCollider, Javascript, Google AppScript, HTML, CSS, PHP, SQL.

Sys-admin: Mac OSX, Windows, Linux, Apache. Audio workstations and servers.

Competent audio producer, very experienced with all major digital audio packages.

High level of written and spoken English.

## **Publications:**

Kleimola, J., and Larkin, O., "Web Audio Modules", in Proceedings of the 12th Sound and Music Computing Conference (SMC-2015), July 30 – August 1, 2015, Maynooth, Ireland.

Larkin, O., "pMix Touch" in Proceedings of the 1st Innovation in Music Conference, York, UK. 2013.

Malham, D., Myatt, T., Larkin, O., Worth, P., Paradis, M., "Audio Spatialisation for The Morning Line" in Proceedings of the 128th AES Convention London, UK, 2010.

Larkin, O., Koerselman, T., Ong, B., Ng, K. - "Sonification of Bowing Features for String Instrument Training". Proceedings of the International Conference on Auditory Display (ICAD), 2008. Paris, France.

Larkin, O. "Int.lib - A Graphical Preset Interpolator for Max MSP". Proceedings of the International Computer Music Conference (ICMC), 2007. Copenhagen, Denmark.

Ng, K., Larkin, O., Koerselman, T., Ong, B., Schwarz D, Bevilaqua, F. - "The 3D Augmented Mirror - Motion Analysis for String Practice Training". Presentation, Proceedings of the International Computer Music Conference (ICMC), 2007. Copenhagen, Denmark.

Ng, K., Larkin, O., Koerselman, T., and Ong, B. i-Maestro Gesture and Posture Support: 3D Motion Data Visualisation for Music Learning And Playing, in Proceedings of EVA 2007 London International Conference, Eds: Jonathan P. Bowen, Suzanne Keene, Lindsay MacDonald, London College of Communication, University of the Arts London, UK, 2007

Ng, K., Weyde, T., Larkin, O., Neubarth, K., Koerselman, T., and Ong, B. 3D Augmented mirror: a multimodal interface for string instrument learning and teaching with gesture support. Proceedings of the Ninth International Conference on Multimodal Interfaces (ICMI'07). 2007. Nagoya, Japan.

Koerselman, T., Larkin, O., Ng, K. - The MAV Framework: Working with Motion data in Max MSP / Jitter. Proceedings of the 3rd International Conference on Automated Production of Cross Media Content for Multi-channel Distribution (AXMEDIS) - i-Maestro Workshop, Barcelona 2007.

## **Artistic Work:**

19/07/12 - "Moire Patterns" with Benno Belke - Site specific composition/installation, Platz der Weltausstellung. Hannover. <http://olilarkin.blogspot.co.uk/2012/07/moire-patterns-in-hannover.html>

24/02/14 - [WireWool 6](#), The Woolpack, York - Curation, Live Electroacoustic improv

28/10/13 - [WireWool 2](#), The Woolpack, York - Curation, Live AV set

13/12/11 - [Strange Vibrations 2](#), Rymer Auditorium, MRC, University of York, Curation.

1/12/10 - [Strange Vibrations 1](#), Rymer Auditorium, MRC, University of York, Curation, playback of "Suck" Electroacoustic composition.

## **Presentations:**

18/02/16 - Music department research seminar, University of York. "My creative sound software practice - new instruments and modalities"

19/12/15 - [JUCE Summit, London. "Using the FAUST DSP language and the libfaust JIT compiler with JUCE"](#)

01/08/13 - (Paper Presentation) SMC 2015 - "Web Audio Modules", with Jari Kleimola.

26/01/15 - (DEMO) 1st Web Audio Conference, IRCAM, Paris. "ol.wsserver - HTML5 Websocket Server for Max"

01/03/14 - Electric Spring festival, Max MSP symposium, Huddersfield. "Making Audio Plug-ins using Gen~ and IPlug"

27/02/13 - Code Control, Max MSP convention, Leicester. "Sound Spatialisation for The Morning Line"

13/01/12 - [M4U, European Max MSP Convention, Leicester. "Life after Pluggo - Getting started programming plugins in C++ using IPlug" Workshop.](#)

05/02/13 - [Supernatant Mini Conference, University of York.](#) Presentation of software.

11/02/13 - (Guest Lecture) Goldsmiths University, London. "Intro To Audio Plug-In Development With IPlug"

05/07/12 - [Music HackSpace, London. "Intro To Audio Plug-In Development With IPlug"](#)

18/04/12 - (Guest Lecture) HFG Karlsruhe. "Sound Spatialisation for The Morning Line"

04/06/10 - MRC Studio Report - ICMC 2010, Stonybrook University, USA.

30/01/10 - Electric Spring festival, Max MSP symposium, Huddersfield. "Some previous Max projects, a granulator and some new externals"

04/06/08 - 4th i-Maestro Workshop on Technology-Enhanced Music Education, colocated with NIME 2008, Genova, Italy ["Analysis and Sonification of Bowing Features for String Instrument Training"](#)

## **Media:**

<https://cycling74.com/2011/06/22/the-morning-line-part-1/>

<https://cycling74.com/2011/06/22/the-morning-line-part-2-surround-concepts/>

<https://cycling74.com/2014/03/14/mini-interview-oli-larkin/>

<http://www.musicradar.com/news/tech/what-is-phase-distortion-synthesis-618081>

<http://www.soundonsound.com/sos/may15/articles/oli-larkin-virtual-cz.htm>

<http://www.musicradar.com/reviews/tech/plugin-boutique-virtualcz-615569>

<http://www.musictech.net/2014/11/plugin-boutique-virtualcz-review/>