Andrew McLeod

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Education

2014–Present   **Informatics PhD**, *University of Edinburgh*, School of Informatics, Edinburgh, UK.
Supervisors: Mark Steedman (Primary), and Simon King (Assistant)
Topic: Automatic Music Transcription using NLP Language Modeling Techniques

2009–2013   **Math/CS joint BS/MS with Highest Honors**, *Emory University*, Atlanta, USA.
Advisor: Li Xiong
Thesis: *Automatic Transcription of Polyphonic Musical Signals with Linear Matching Pursuit*. https://etd.library.emory.edu/view/record/pid/emory:d70pn
Honors:

- Dean's List in Fall 2009, Spring 2010, Spring 2011, Fall 2011, and Spring 2012.
- 2012 Deborah Jackson Award winner for outstanding performance by an undergraduate student.
- 2013 Trevor Evans Award winner for outstanding performance by a Math/CS major.
- Selected to participate in Microsoft's "Golden Ticket" program (one of 50 students from around the US).
- Placed 132nd out of 1515 teams in IEEE's IEEExtreme 5.0 24 hour programming competition.

Industry Experience

2013–2014   **Research Associate**, *Emory University*, Atlanta, GA, USA.
Working with James Lu
Topic: Patchwriting and general NLP

2013–2014   **Technical Assistant**, *Math/CS Department*, Emory University, Atlanta, GA, USA.

- Developed programs and tools in PHP to assist admin and IT staff members.
- Developed a M68000 emulator in C and a backend to allow remote GDB debugging.

Summer 2012   **Technical Intern**, *Suntrust Banks, Inc.*, Atlanta, GA, USA.

- Designed and implemented strategy for knowledge gathering and knowledge management of testing data.
- Assisted in the updating of EIS Solutions Framework terms.
- Coded an excel macro to aid in the tracking of training courses.

2010–2012   **Technical Intern**, *Career Center*, Emory University, Atlanta, GA, USA.

- Assisted in redesign of Center website providing insight in user functionality and site aesthetics.
- Maintain website features including the development of interactive PowerPoint downloads, integration of career development instructional videos, and general content management.

Teaching & Mentorship

2016 **MInf Thesis Supervision**, *University of Edinburgh*, Finlay McAfee, "Automatic Harmonic Analysis of Jazz Solos" (co-supervised with Mark Steedman).

2015 **MSc Thesis Supervision**, *University of Edinburgh*, Catherine Sweetman, "Parsing of Polyphonic Rhythm" (co-supervised with Mark Steedman).

Service

2017 **Reviewer**, *The 18th International Society for Music Information Retrieval Conference*.

20 July, 2016 **Organizer: 1st UK Music Informatics and Cognition (MIC) 2016 Workshop**, *University of Edinburgh*.
- Brought together music researchers from around the UK.
- See http://homepages.inf.ed.ac.uk/s1331854/mic2016.html

2015-2016 **Reviewer**, *Journal of New Music Research*.

Outreach

2015-Present **Crew Member: CompuCast, the computer science podcast**, *University of Edinburgh*.
- Bi-monthly podcast featuring computer science news and interviews with researchers.
- See http://compucast.io/

2016 **Demonstrator: Various primary school age classes, teaching basic programming**, *University of Edinburgh*.
- INSPIRE Summer School 2016
- Sutton Trust Summer School 2016
- Edinburgh Science Festival 2016

Refereed Journal Articles

Andrew McLeod and Mark Steedman. Hmm-based voice separation of midi performance. *Journal of New Music Research*, 45(1):17–26, 2016.

Refereed Conference Papers

Andrew McLeod and Mark Steedman. Meter detection in symbolic music using a lexicalized pcfg. In *Proceedings of the 14th Sound and Music Computing Conference*, 2017, *to appear*.

Posters

Musical Meter Detection Using Context-Free Grammars.
- At the 1st UK Music Informatics and Cognition (MIC) 2016 Workshop, University of Edinburgh, (20 July, 2016).

Meter Identification of MIDI Using Pattern Detection.
- At the Late Breaking Demo session at ISMIR 2015, Malaga, Spain, (30 Oct, 2015).

Presentations

Meter Detection From Music Data.
- Joint work with Mark Steedman
- At DMRN+11: Digital Music Research Network One-day Workshop 2016, Queen Mary University of London, (20 December, 2016).

Symbolic Music Analysis for Music Transcription.
- At the 1st UK Music Informatics and Cognition (MIC) 2016 Workshop, University of Edinburgh, (20 July, 2016).