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, Emory University, Atlanta, GA, 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

- o 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.

Administrative Experience

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

Outreach

- 2015-Present **Crew Member: CompuCast, the computer science podcast**, *University of Edinburgh*.
 - o Bi-monthly podcast featuring computer science news and interviews with researchers.
 - o See http://compucast.io/
 - 2016 Demonstrator: Various primary school age classes, teaching basic programming, *University of Edinburgh*.
 - o INSPIRE Summer School 2016
 - Sutton Trust Summer School 2016
 - Edinburgh Science Festival 2016

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).

Peer-reviewed Publications

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