

# Dr Charlie Mydlarz

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## Education

- May 2013 **PhD in Soundscape research utilizing mobile technologies**, *University of Salford*.  
Jun 2007 **BSc Honours in Audio Technology**, *University of Salford*.  
1<sup>st</sup> class honours

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## Experience

- Sept 2016 - **Senior Research Scientist**, *NYU CUSP*.  
Present Sounds Of New York City - SONYC project - mapping the soundscape of NYC  
Includes the development, implementation and deployment of accurate, low cost acoustic sensing devices for sound and noise sensing at city scale. This work is part of the NSF funded Sounds Of New York City (SONYC) project.
- Oct 2013 - **Post Doctoral Associate**, *NYU CUSP*.  
Sept 2016 Sounds Of New York City - SONYC project - mapping the soundscape of NYC  
Working on the development and implementation of cyberphysical systems for large scale, high resolution soundscape data capture from urban environments.
- Jan 2013 - **Research Assistant**, *University of Salford*.  
Jun 2013 Framework for Innovation and Research in MediaCityUK (FIRM), Hyperlocal TV research project  
Running a short term research project investigating hyperlocal TV services, with a particular focus on sports coverage. The project is partnered with BT, and a number of local charities and media organisations. The main aim is to gauge audience appreciation towards hyperlocal content and the ways in which they consume it.
- Feb 2010 - **Research Technician**, *University of Salford*.  
Jun 2012 EPSRC project: ISESS “Identifying a Sound Environment for Secondary Schools”, investigating the effects on teaching and learning of different acoustic designs within secondary schools and classrooms.
- Sep 2007 - **Assistant Lecturer**, *University of Salford*.  
Jun 2012 Assisted in the teaching & marking of: C# Application Programming, XNA Games Programming for AVT & Mathematics for AVT
- Sep 2007 - **Research Assistant**, *University of Salford*.  
Sep 2009 EPSRC PPE project: IMPRINtS “Internet and Mobile Technologies for a Public Role in Noise Surveying”
- Jul 2005 - **Service Engineer**, *HHB Communications*, London.  
Aug 2006 Placement position in a busy service department, servicing and maintaining a wide range of professional audio equipment

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## Doctoral Thesis

- Title *Application of novel techniques for the investigation of human relationships with soundscapes*  
Supervisors Dr Ian Drumm, Prof Trevor Cox  
Description The design, development, use and validation of a novel method for soundscape research utilizing mobile & internet technologies & mass participation, citizen science field studies

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## Bachelor Thesis

- Title *Design & Implementation of an Intuitive Graphical Interface for Timbre Manipulation*  
Supervisors Dr Ben Shirley  
Description An intuitive sound synthesis environment, with timbre manipulated using an abstract three dimensional Cube space, programmed in C++ and Visual Basic using DirectX 3D visualizations

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## Publications

- Journals
- SONYC: A System for the Monitoring, Analysis and Mitigation of Urban Noise Pollution - Communications of the ACM - 2018
  - The implementation of low-cost urban acoustic monitoring devices - Applied Acoustics, special issue on Acoustics of Smart Cities - 2016
  - Comparison of environmental and acoustic factors in occupied school classrooms for 11-16 year old students - Building & Environment - 2012
  - Blind estimation of reverberation time in classrooms and hospital wards - Applied Acoustics - 2012
- Book chapters
- Sound Analysis in Smart Cities - Computational Analysis of Sound Scenes and Events - 2018
- Conferences
- The design and calibration of low cost urban acoustic sensing devices - Awarded best paper - EuroNoise Maastricht - 2015
  - Sensing Urban Soundscapes - EDBT/ICDT Athens - 2014
  - The implementation of MEMS microphones for urban sound sensing - AES Convention LA - 2014
  - The design of urban sound monitoring devices - AES Convention LA - 2014
  - Classification of soundscapes using a novel mobile and internet methodology - Internoise Ottawa - 2009
  - Internet and mobile technologies for a public role in noise surveying - ASA Paris - 2008
  - Involving the public in noise surveys via mobile technology - IOA Reading - 2008

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## Computer skills

- Advanced
- Objective C, Python, Javascript, PHP, Matlab, C#, HTML, Java, SPSS Syntax, Latex
- Intermediate
- C++, C, Fortran
- Tools
- XCode, Matlab, SPSS, JQuery, Notepad++, MySQL, Adobe Master Collection, Audition

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## Other training

Customer discovery, Business model generation, Research methodologies, Media communication for print and broadcast, Public communication, Statistical analysis, Graphic design

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## Other Projects

### Public engagement & outreach

- Oct 2011 Manchester Science Festival - Created and ran an event in the Salford Lads Club on the science of sound
- Oct 2011 Bright Club Manchester - Gave a number of talks to the public about the science of sound
- Oct 2010 Manchester Science Festival - Created and ran an event on the BBC big screen engaging the public with the science of sound
- Aug 2010 Green Man Festival - Created and ran an event in Einstein's Garden educating children about the science of sound and bicycle based music
- Oct 2009 Manchester Science Festival - Created and ran an event on the BBC big screen engaging the public with the science of sound
- Oct 2008 - Jun 2011 The Crescent Network - Co-Founded a network to support and encourage early career researchers to undertake public engagement
- Sep 2008 RCUK Perspectives Poster Competition - Finalist in poster competition exploring the social implications of my PhD work

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## Qualities

- Personal skills:
- I am an enthusiastic and motivated person and immerse myself in whatever I do. I work well independently but also enjoy being part of a team. I have a long standing interest in technology and since I was a child I have had a desire to understand how things work and interact. I am a keen cyclist, climber & swimmer and enjoy meeting people. I am also a keen traveler, having spent five months traveling the world in 2003.
- Experience with:
- A wide range of programming languages, application development, usability studies, research methods, subjective testing, database creation and management, public engagement, acoustics, public relations, web development & design, graphic design
- References:
- Available on request