Dr Charlie Mydlarz

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Education

July 2013	**PhD in Soundscape research utilizing mobile technologies**, *University of Salford.*
Jun 2007	**BSc Honours in Audio Technology**, *University of Salford, 1st class honours.*

Experience

Sept 2016 - Present — **Senior Research Scientist**, *NYU CUSP.*
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 - Sept 2016 — **Post Doctoral Associate**, *NYU CUSP.*
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 - Jun 2013 — **Research Assistant**, *University of Salford.*
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 main aim is to gauge audience appreciation towards hyperlocal content and the ways in which they consume it.

Feb 2010 - Jun 2012 — **Research Technician**, *University of Salford.*
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 - Jun 2012 — **Assistant Lecturer**, *University of Salford.*
Assisted in the teaching & grading of: C# Application Programming, XNA Games Programming for AVT & Mathematics for AVT

Sep 2007 - Sep 2009 — **Research Assistant**, *University of Salford.*
EPSRC PPE project: IMPRINtS "Internet and Mobile Technologies for a Public Role in Noise Surveying"

Jul 2005 - Aug 2006 — **Service Engineer**, *HHB Communications*, London.
Placement position in a busy service department, servicing and maintaining a wide range of professional audio equipment

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

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

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
Chapters	Sound Analysis in Smart Cities - Computational Analysis of Sound Scenes and Events - 2018
Conferences	A Low-Cost, High-Quality MEMS Ambisonic Microphone - Audio Engineering Society Convention 143 - 2017
	Noise monitoring and enforcement in New York City using a remote acoustic sensor network - Internoise Hong Kong - 2017
	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

Computer skills

Advanced	Python, Objective C, C++, C, C#, Javascript, PHP, Matlab, HTML, Java, SPSS Syntax, Latex
Tools	PyCharm, Matlab, SPSS, Photoshop, Illustrator, Audition

Other training

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

Other Projects

Public engagement & outreach

March 2018	Smart Cities Connect Conference 2018 - Gave keynote speech for the SONYC project in front of 1000+ US mayors and city officials
July 2017	ARISE mentor - Mentored two female, minority high school students working on smart urban noise sensing
June 2016	Girl Scout Lecture - Gave an interactive lecture on the science of sound to 30 girl scouts visiting NYU
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

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, public engagement, acoustics, public relations, web development & design, graphic design
References:	Available on request