
Corey Ford

BSc(Hons) MRes UWE, AFHEA
PhD Researcher in AI / HCI /Music

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Education

2020-present	Queen Mary University of London PhD in Artificial Intelligence and Music (HCI)
2019-2020	The University of The West of England MRes Data Science (HCI), Distinction
2016-2019	The University of the West of England BSc (Hons) Creative Music Technology (JAMES accredited), First class
2009-2016	Cox Green Secondary School A-Level Mathematics, Music and Media – Grade B
2005-2014	FunTech Computing School A-Level Computing (Aged 15) and GCSE ICT (Aged 12) – Grade A

Employment

Summer 2023	Research Assistant (Autoethnography) (Queen Mary University of London) Conducted an in-depth ethnographic investigation of incorporating an explainable AI plugin into my band's creative practice composing punk rock music.
2023-present	Teaching Fellow (Queen Mary University of London) Lecturing for the User Experience Design module (Level 6) with 184 enrolled students. Duties included: preparing and delivering weekly 2-hour lectures; preparing and delivering 'drop-in' style lab sessions; organisation, training and supervision of 6+ demonstrators; organisation and moderation of coursework marking; updating teaching materials and module VLE course pages; running office hours; and supporting student queries throughout the teaching term.
2020-present	Demonstrator (Queen Mary University of London) Assisted teaching, assessment and administration (e.g. liaison with finance for Creative Group Project) across of the university's computer science and creative engineering degrees, on the following modules: <ul style="list-style-type: none">• Design for Human Interaction (Level 6 and 7)• Interaction Design (Level 6)• Creative Group Project (Level 5) *winner of Sustainability Award 2023• Arts Application Programming (Level 4)
Summer 2021	Research Assistant (Explainable AI) (Queen Mary University of London) Worked in a team to undertake a survey of AI systems which support co-creation of music between humans and machines, reviewing a number of creative AI systems from a user-centred perspective and developing a taxonomy based on how people interact with them.
2019-2021	Associate Lecturer (The University of The West of England) Contributed to lecturing, teaching, assessment (*= and curriculum design) for the BSc (Hons) Music Technology degrees and MSc Data Science programme, on the following modules: <ul style="list-style-type: none">• Data Science* (Level 7)• Audio Technology* (Level 4)• Introductory Audio Programming (Level 4)• Audio Process Design and Implementation (Level 5)

- 2018-2020** **Programming Tutor (Espresso)** (The University of The West of England)
Lead drop-in sessions for anyone with programming questions across the university's computer science courses and their varied modules (such as: Intro to C++; Audio Process Design and Implementation; and Data Structures and Algorithms).
- Summer 2019** **Research Assistant (Manhattan)** (The University of The West of England)
Supported an iterative design process where functionality, language primitives and improved usability were developed based on my experience of transcribing music as {music + code} with a novel generative music programming environment, named Manhattan.
- Jun-July 2019** **Workshop Lead** (The University of The West of England)
Developed didactic materials and led a workshop for A-Level students, introducing them to sound editing. This was for a STEM outreach event (funded by the Institute of Coding).
- Summer 2018** **Audio Software Developer Intern** (The University of The West of England)
Worked with UWE's Creative Technologies Laboratory, supporting experimental work with their audio development board, writing real-time C++ and FAUST code.
- 2017-2018** **Academic PAL Leader** (The University of The West of England)
Academic mentor/facilitator for 1st year students in Music Technology (particularly helping with the Introductory Audio Programming module). Led to an ILM Level 3 Mentoring Award.
- 2017-2018** **Tech Tutor** (FunTech)
Tutoring holiday tech camps for 8-16-year-olds. These included: Lego EV3's, Java, Python, App Design, OOP & Scratch.
- Mar-Apr 2017** **Developer** (FunTech)
I wrote the course content in C for a "Music Coder" tech camp. I'd pitched the idea with a mini business plan and budget estimation.
- 2015-2016** **Network Systems Assistant** (Wessex Primary School)
I worked as a technician fixing general IT issues around the school. This included: re-imaging laptops, debugging, researching software, running updates and communicating efficiently through e-mail.

Publications

::: FULL CONFERENCE PAPERS :::

- Ford, C** and Bryan-Kinns, N (2023) Towards a Reflection in Creative Experience Questionnaire. *ACM Conference on Computer-Human Interaction (CHI)*. Hamburg, Germany [in-person].
- Ford, C** and Bryan-Kinns, N (2022) Identifying Engagement in Children's Interaction whilst Composing Digital Music at Home. *ACM Conference on Creativity and Cognition (C&C)*. Venice, Italy [in-person].
- Ford C**, Bryan-Kinns, N and Nash, C (2021) Creativity in Children's Digital Music Composition. *International Conference on New Interfaces for Musical Expression (NIME)*. NYU Shanghai, China [online].
- Ford, C** and Nash, C (2020). An Iterative Design 'by proxy' Method for Developing Educational Music Interfaces. *International Conference on New Interfaces for Musical Expression (NIME)*. Birmingham, UK [online].

::: WORKSHOP PAPERS :::

- Ford, C** and Bryan-Kinns, N (2023) On the Role of Reflection and Digital Tool Design for Creative Practitioners. *Workshop on Digital Skills for the Creative Practitioner: Supporting Informal Learning of Technologies for Creativity at CHI*. Hamburg, Germany [in-person].
- Ford, C** and Bryan-Kinns, N (2022) Speculating on Reflection and People's Music Co-Creation with AI. *Workshop on Generative AI and HCI at CHI*. New Orleans, USA [online].
- Bryan-Kinns, N, Banar, B, **Ford, C**, Reed, CN, Zhang, Y, Colton, S and Armitage, J (2021) Exploring XAI for the Arts: Explaining Latent Space in Generative Music. *1st Workshop on eXplainable AI Approaches for Debugging and Diagnosis at NeurIPS*. New Orleans, USA [online].

Memberships

Associate Fellow of Higher Education Academy (AFHEA)

Student Member of the Association of Computing Machinery (ACM) & SIGCHI

Member of the Interaction Design Foundation 2021-2022

Technical Skills

UX Research	Skills – Empirical user studies, personas, usability testing, user stories, wizard-of-oz, ideation, design fiction, prototyping & wireframing, child-computer interaction Knowledge – Designing for engagement, designing for reflection, creativity support tools, human-ai interaction, Norman's design principles, ethnography, phenomenology, multimodal interface design, activity theory, distributed cognition, cognitive dimensions, casual creators Quantitative Methods – experiment design and analysis; A/B testing; questionnaire development and validation; questionnaire design and validation; structural equation modelling (PLS-SEM, CB-SEM); factor analysis; interaction log mining Qualitative Methods – data gathering and analysis of experiential sources (i.e. think-aloud studies, interviews, video-cued recall, thematic analysis, discourse analysis)
Languages	C++ (interactive systems and embedded); Python (data mining, ML); JavaScript (audio, GUI, ML); LaTeX (publications); R (statistics); Java ; FAUST ; HTML ; CSS ;
Frameworks	JUCE (experience developing large-scale multi-threaded applications); Anaconda (numpy, pandas, matplotlib); Processing & P5js (musical interfaces, generative art, web ML); Music Informatics (music21, librosa, essentia); Machine Learning (TensorFlow, Keras)
Tools	GIT ; MIDI ; BibTex ; Doxygen ; UML ; JSON ; XML
Music	Sibelius – 7+ years' experience, able to produce complex typeset scores. DAW's – Logic , Pro Tools , Cubase & Reaper . Guitar (grade 8 standard); Piano (self-taught); Composition (portfolio on request).
Other	Arduino ; OS (Mac OSX, Windows, Linux); Applications (Xcode, Visual Studio, Adobe Creative Suite, MS Office); Mentoring (ILM Level 3 Award); Driving (British driving license).

Extra Curricula Activity

CONFERENCE ORGANISATION

2024	Senior Student Volunteer Co-Chair for the ACM Creativity and Cognition Conference
2023	Junior Student Volunteer Co-Chair for the ACM Creativity and Cognition Conference
2021	Programme chair & editor for the DMRN+16: Digital Music Research Network One-Day Workshop

*** WORKSHOPS ***

2020	Workshop support for BBC Digital Cities Event with Manhattan at the Engine Shed, Bristol
2020	Workshop support for "Crowd Driven Music with Manhattan" at the NIME Conference

*** OTHER ***

2023	"Reflection" Session Chair at the ACM Creativity and Cognition Conference
2022	Volunteer at the International Workshop on Haptic & Audio Interaction Design (HAID)
2021	Supported supervision of 2 MSc Computing and Information Systems (Conversion) Dissertations
2021	Organiser for group lab even between the IRCAM ACIDS lab (France) and the AI + Music CDT (UK)
2020	Student Representative for the AI + Music CDT (Queen Mary University of London)
2019	Student Representative for the MRes Data Science Degree (University of the West of England)

Reviewing

2023	ACM Conference on Computer Human Interaction, Extended Abstracts
2023	Computer Music Journal
2023	ACM Conference on Designing Interactive Systems, Full Papers
2022	International Workshop on Haptic & Audio Interaction Design, Full Papers
2022-Present	ACM Creativity and Cognition Conference, Full Papers
2021-Present	New Instruments for Musical Expression (NIME) Conference, Full Papers
2021	Digital Music Research Network One-Day Workshop, Full Papers

Talks

:::INVITED:::

Pint of Science Festival on ART-ificial Intelligence and Music (2022)

On Creativity & Codetta for the School of Computing and Communications at the Open University (2021)

Codetta Talk & Workshop for MA Creative Music Practice students at the University of Gloucestershire (2020)

:::OTHER:::

AIM CDT External Advisory Board 2021

Numerous AIM CDT Forum Events

Group lab event between ACIDS (IRCAM) and AIM (QMUL)

Group lab event between McGill and QMUL

Presentation at the Innovation In Music Conference 2019

Awards and Funding

Pendlebury-Tucker Prize (Award for Best Music Technology Project) (£200)

Dean's Award for Academic Excellence 2016/2017 and 2017/2018

Granted funding from the University of the West of England's enterprise summer scholarship scheme (£1000)

References

Prof Nick Bryan-Kinns (Professor of Interaction Design) – n.bryan-kinns@qmul.ac.uk

Dr Chris Nash (Senior Lecturer in Music Technology) – chris.nash@uwe.ac.uk