
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

Apr-Jul 2024	Post-Doctoral Research Assistant (University of the Arts London) Worked with a London AI music start-up company to co-design interfaces for responsive generative AI. Part-time.
Summer 2023	Research Assistant (Autoethnography) (Queen Mary University of London) Conducted an in-depth autoethnographic investigation of incorporating an explainable AI plugin into my band's creative practice of composing punk rock music.
2022-2024	Teaching Fellow (Queen Mary University of London) Lecturing for User Experience Design (Level 6 & 7, 180+ students). Student feedback: <ul style="list-style-type: none">“Corey Ford has been my favourite lecturer in the last 3 years of QMUL education.”“Corey was incredibly supportive throughout the module. Constantly and consistently assisting students throughout labs [...] He seems truly dedicated to maximizing students' potential by keeping learning important and fun at the same time.”“Really enjoyed how conversational Corey's lectures were and how he got the class interacting.”“Corey was a part of this module and he truly made the part for me and my team's and other student's final semester at Queen Mary.”

Wrote and developed all course material for a **HCI Research Methods** module (Level 7). Student feedback includes:

- “It is helpful to cover content that is relevant to the MSc Project. Corey does a great job of running lectures!”
- “Structure of the course is good.”
- “Very interactive and covered sufficient content in a single lecture which made it easier to grasp the topics easily”

Developed course material for a **GUI web development** module (Level 5), walking students through **Figma** to **HTML & CSS**, to **React**.

Duties included: preparing and delivering lectures; preparing and delivering ‘drop-in’ style lab sessions; organisation, training and supervision of 8 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.

- 2020-2023** **Demonstrator** (Queen Mary University of London)
Assisted teaching, assessment and administration (e.g. liaison with finance) across the university's computer science and creative engineering degrees, for the following modules:
- Design for Human Interaction (Level 6 and 7)
 - Interaction Design (Level 6 and 7)
 - 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 degree, on the following modules:
- Programming for Data Science* (Level 7)
 - Audio Process Design and Implementation (Level 5)
 - Audio Technology* (Level 4)
 - Introductory Audio Programming (Level 4)
- 2018-2020** **Programming Tutor** (The University of The West of England)
Led drop-in sessions for students 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 (Music & Code)** (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 teaching 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 (ARM M4 & M7 chips), writing real-time C++ and FAUST code.
- 2017-2018** **Academic PAL Leader** (The University of The West of England)
Mentored and facilitated learning for 1st year students in Music Technology (particularly helping with their audio programming in C++). Led to an ILM Level 3 Mentoring Award.
- 2017-2018** **Tech Tutor** (FunTech)
Tutoring holiday tech camps for 8-16-year-olds. These included: Unity Game Development, Lego EV3's, Java, Python, App Design, Object-Oriented Programming & Scratch.
- Mar-Apr 2017** **Developer** (FunTech)
Wrote 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)
Worked as a technician fixing general IT issues around the school.

Publications

::: FULL CONFERENCE PAPERS :::

Ford, C, Noel-Hirst, A, Cardinale, S, Loth, J, Sarmiento, P, Wilson, E, Wolstanholme, L, Worrall, K and Bryan-Kinns, N (2024) Reflection Across AI-based Music Composition. *ACM Conference on Creativity and Cognition (C&C)*. Chicago, USA [in-person] ***Honourable Mention Award (top 5% submissions)!**

Bryan-Kinns, N, Noel-Hirst, A and **Ford, C** (2024) Using Incongruous Genres to Explore Music Making with AI Generated Content. *ACM Conference on Creativity and Cognition (C&C)*. Chicago, USA [in-person]

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 :::

Lewis, M...**Ford, C** and 38 others (2024) Traveling Arts x HCI Sketchbook: Exploring the Intersection Between Artistic Expression and Human-Computer Interaction. *alt.chi at CHI*, Hawaii, USA [in-person]

Ford, C, Cardinale, S and Bryan-Kinns, N (2023) Three Open Questions for the Design of AI for Music Composition. *CHIME One Day Workshop*, Milton Keynes, UK [in-person]

Bryan-Kinns, N, **Ford, C**, Chamberlain, A, Benford, S, Kennedy, H, Li, Z, Qiong, W, Xia, G and Rezwana, J (2023) Explainable AI for the Arts: XAIxArts. *ACM Conference on Creativity and Cognition (C&C)* [online].

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].

::: UNDER REVIEW :::

Ford, C and Bryan-Kinns, N (2024) Exploring Reflection and Engagement with a CST for AI-based Music Composition. *International Journal of Human Computers Studies (IJHCS)*

Memberships

Associate Fellow of the Higher Education Academy (AFHEA)

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

Student Member of the British Computing Society (BCS) – Early Career Ambassador for the Computer Arts Society (CAS)

Technical Skills

Research

UX – User studies, personas, usability testing, user stories, card sorting, 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, autoethnography, phenomenology, multimodal interface design, activity theory, distributed cognition, cognitive dimensions, casual creators, NIME

Quantitative Methods – machine learning, experiment design and analysis; A/B testing; questionnaire development and validation; structural equation modelling; factor analysis; interaction logs; data mining

Qualitative Methods – think-aloud studies; interviews; video-cued recall; thematic analysis, discourse analysis

Languages	JavaScript (audio, GUI, ML); C++ (interactive systems and embedded); Python (data mining, statistics, ML); LaTeX (publications); R (statistics); Java ; HTML ; CSS ; Javascript ;
Frameworks	JUCE (large-scale multi-threaded applications); Processing & P5js (musical interfaces, generative art, web ML); Web (React, Tone.js, NPM); OpenFrameworks (interactive systems, generative art); Machine Learning (TensorFlow, Keras); Anaconda (numpy, pandas, matplotlib);
Tools	GIT ; MIDI ; BibTex ; Doxygen ; UML ; JSON ; XML
Music	Sibelius , Logic , Pro Tools , Cubase & Reaper . Guitar (grade 8 standard); Piano (self-taught); Music Composition (portfolio on request).
Other	Arduino ; OS (Mac OSX, Windows, Linux); Applications (Xcode, Visual Studio, Adobe Creative Suite, MS Office); Driving (British driving license).

Extra Curricula Activity

:::CONFERENCE ORGANISATION:::

- 2024 Senior Student Volunteer Chair for ACM Creativity and Cognition (C&C)
- 2023 “Reflection” Session Chair for ACM Creativity and Cognition (C&C)
- 2023 Junior Student Volunteer Co-Chair for ACM Creativity and Cognition (C&C)
- 2021 Programme chair & editor for the DMRN+16: Digital Music Research Network One-Day Workshop

::: WORKSHOP SUPPORT :::

- 2024 Co-Organiser for the Explainable AI for the Arts 2 Workshop at ACM Creativity and Cognition 2024
- 2023 Co-Organiser for the Explainable AI for the Arts Workshop at ACM Creativity and Cognition 2023
- 2022 Volunteer at the International Workshop on Haptic & Audio Interaction Design (HAID)
- 2020 Workshop support for the BBC Digital Cities Event with Manhattan at the Engine Shed, Bristol
- 2020 Workshop support for “Crowd Driven Music with Manhattan” at the NIME Conference

::: TEACHING & MENTORING :::

- 2021 Supported supervision of 2 MSc Computing and Information Systems (Conversion) Dissertations
- 2018 Awarded an ILM Level 3 Mentoring Certificate

::: ETHICS PANEL :::

- 2023 Queen Mary Ethics of Research Committee Panel Member (Devolved School Ethics Committee)

::: OTHER :::

- 2021 Organiser for group lab event 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

- 2024 ACM DIS - AC for the Research-Through-Design Committee, Full Papers
- 2023 ACM Conference on Computer Human Interaction (CHI), Full Papers
- 2023 ACM Conference on Computer Human Interaction (CHI), Extended Abstracts
- 2023 Computer Music Journal
- 2023 ACM Conference on Designing Interactive Systems (DIS), Full Papers

2022	International Workshop on Haptic & Audio Interaction Design (HAID), Full Papers
2022-present	ACM Creativity and Cognition Conference (C&C), Full Papers
2021-2024	New Instruments for Musical Expression (NIME) Conference, Full Papers
2021	Digital Music Research Network (DMRN) One-Day Workshop, Full Papers

Talks

:::INVITED:::

From Code to Chord: Live AI Music at the Music Managers Forum Summit on AI (2023)
ART-ificial Intelligence and Music at the Pint of Science Festival (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
Group lab event between ACIDS (IRCAM) and AIM (QMUL)
Group lab event between McGill and QMUL
Presentation at the Innovation in Music Conference at the University of West London 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 Creative Computing

University of Arts London

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Dr Karen Shoop

Senior Lecturer in Design & Programme Coordinator for BSc(Hons) Creative Computing

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