Alex Williams

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I am an academic researcher with multi-disciplinary experience in areas of computer science, engineering and music technology. I am passionate about scientific research, technology and their impact and intersection with areas such as sustainability, politics, music, art and culture. My research interests include ethical AI, computational creativity, music information retrieval, human-computer interaction, robotics, Industry 4.0, and music production.

Education

PhD. Artificial Intelligence and Music **2022 – Present**
Queen Mary University of London, in collaboration with Sony CSL

MSc. by Research, Artificial Intelligence and Robotics **2018 – 2021**
Swansea University

BSc. Hons. Computer Science: First Class, **2015 – 2018**
University of Liverpool

Employment

Module Demonstrator – *Queen Mary University of London* **2024**
Chief AI Officer – *Mariposa AI* **2024**
Research Assistant – *ASTUTE, Swansea University* **2018 – 2023**
Junior Developer – *Malinko* **2018**

Other Skills

Languages: English (Fluent), French (Intermediate), Welsh (Intermediate)
Music: Electronic music producer/DJ of 13 years composing, producing, and mixing; releasing original music, sound design for games and visual media, and radio shows / DJ mixes

Published Works

- Williams and Barthet, ***'Towards Music Industry 5.0: Perspectives on Artificial Intelligence'***, Artificial Intelligence for Music Workshop at the 39th Annual AAAI Conference on Artificial Intelligence}; Philadelphia, PA, USA, 2025;
- Williams et al., ***'Deep Learning-based Audio Representations for the Analysis and Visualisation of Electronic Dance Music DJ Mixes'***, AES International Symposium on AI and the Musician, 2024;
- Williams et al., ***'Sound-and-Image-Informed Music Artwork Generation Using Text-to-Image Models'*** *at the Music Recommender Systems Workshop at RecSys, 2023;*
- Matallah et al., **'A Deep Reinforcement Learning Approach to BEV Powertrain Optimisation'**, KES SDM, 2022;
- Williams, ***'Real-Time Visual Servoing of a Redundant Manipulator via Deep Reinforcement Learning'***; Master's Thesis; Swansea University, 2021;
- Williams et al., **'Survey of Energy Harvesting Technologies for Wireless Sensor Networks'**, IEEE Access, 2021
- Torquato et al., '***Cascade Optimisation of Battery Electric Vehicle Powertrains'***, KES, 2021