Megan Elisabeth Finch
PhD Computer Science Student
Artificial Intelligence and Human Systems Group (`https://aihs.webspace.durham.ac.uk`)
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EDUCATION

Durham University, Durham, UK *2024 – Present*
PhD Computer Science

- Topic: *Difficulty-Aware Automated Music Arrangement for Music Education* (advisors: Dr Chris Willcocks & Dr Mark Gotham)
- Researching application of multimodal machine learning (audio, video, symbolic music, text) to understand and generate music of different performance difficulty levels.
- Funded by the Durham Doctoral Teaching Fellowship

Korea Advanced Institute of Science & Technology (KAIST), Daejeon, KR *2022 – 2024*
MS Culture Technology

- Grade: 4.06/4.3 CGPA.
- Thesis: *Controllable Audio-to-Piano Cover Generation* (advisor: Prof. Juhan Nam)
- Courses (selected): Mathematics for AI, Deep Learning for Natural Language Processing, Musical Applications of Machine Learning, Generative AI for Music, Cognitive Science of Music

University of Cambridge, Cambridge, UK *2019 – 2022*
BA (Hons) Computer Science

- Grade: Class 2:1 (67%).
- Dissertation: *Inferring Structure from Motion* (advisor: Mr Matthew Ireland). Implemented and compared solutions to the 3D reconstruction problem in computer vision.
- Courses (selected): Digital Signal Processing, Computer Music, Artificial Intelligence, Machine Learning, Human-Computer Interaction, Quantum Computing

TEACHING EXPERIENCE

Durham University, Durham, UK *Oct 2025 – Present*
Doctoral Teaching Fellow

- Delivering lectures and practical teaching on a part-time basis (33%) alongside my PhD, and working towards Associate Fellowship of the Higher Education Academy.
- **Fall 2025.** Lecturer for Introduction to Music Processing.

University of Cambridge, Cambridge, UK *Jan 2023 – Present*
Computer Science Supervisor (Part-Time)

- **Spring 2023, Spring 2024, Spring 2025.** Supervisor for Further Human-Computer Interaction.
- **Fall 2023, Fall 2024.** Supervisor for Foundations of Computer Science (OCaml, Functional Programming).
- Supervisions at Cambridge are small group teaching with 1–3 students where topics are discussed in depth. For more information, please see the linked page.

WORK EXPERIENCE

inMusic, Cambridge, UK *Jun – Aug 2022*
Software Developer Intern

- Shipped DAW integration for a new AKAI MPK series hardware controller, using scripting APIs (Python, JavaScript, Lua) to map MIDI signals to various DAW controls (MPC, Logic Pro, Ableton Live, etc).

VividQ, Cambridge, UK *Jun – Sep 2020*
Software Developer Intern

- Contributed to the VividQ holography SDK and the development of a new augmented reality desktop display, using C++, C#, and Python.

Collins Aerospace, Plymouth, UK *Oct 2018 – Aug 2019*
DevOps Intern

- Developed a database system for logging safety test outcomes, using C# with ASP.NET MVC and Entity Framework.
- Engineering Development Trust (EDT) *Contribution to the Business* Award – Winner (South West 2019)
- Plymouth Manufacturing Group *Best Manufacturing Project* Award – Finalist (2019)

TECHNICAL SKILLS

- **Languages:** Python, C, C++, C#, Matlab, Java, JavaScript, OCaml
- **Machine Learning:** PyTorch, TensorFlow, HuggingFace (Transformers)
- **Music & Audio:** DAWs, MIDI, Digital Signal Processing (DSP), JUCE
- **OS:** Unix, Linux, Windows

NON-TECHNICAL SKILLS

- **Languages:** English (native), Japanese (JLPT N5), Korean (elementary)
- **Music:** Baritone Horn (ABRSM Grade 5), Piano (ABRSM Grade 5), Music Theory (ABRSM Grade 5), Mandolin

SCHOLARSHIPS & FUNDING

- Durham Doctoral Teaching Fellowship, *2024–2028*
- KAIST Research Assistantship, *2022–2024*
- KAIST International Scholarship, *2022–2024*

References available on request.