Megan Elisabeth Finch
MS Student
Music and Audio Computing Lab (`http://mac.kaist.ac.kr`)
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EDUCATION

KAIST, Daejeon, KR *2022 – 2024 (Expected)*
MS Culture Technology

- Music and Audio Computing Lab (MACLab).
- Grade: 4.06/4.3 CGPA.
- Thesis: *Controllable Audio-to-Piano Cover Generation* (advisor: Prof. Juhan Nam), in progress.
- Courses (selected): Mathematics for AI, Musical Applications of Machine Learning, Cognitive Science of Music
- Research Interests: machine learning for music, music modelling and generation, automated music arrangement, NLP, digital humanities, ethics of AI

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

- Grade: Class 2:1 (67%), approximately equivalent to 3.7/4.0 GPA.
- 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 and Quantum Computing.

TEACHING EXPERIENCE

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

- **Spring 2023.** Supervisor for Further Human-Computer Interaction.
- 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

- DAW integration for a new AKAI MPK series hardware controller, using the scripting APIs for MPC, Logic Pro, Ableton Live, FL Studio and Cubase to send and receive MIDI and SysEx messages.
- Scripting in Python, JavaScript and Lua.

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

- UI design for a new holographic heads-up display (HUD) prototype.
- UI feature implementation for an application that rendered proprietary hologram files in 2D, using C# and ASP.NET MVVM framework, packaged with the VividQ SDK.
- Evaluation of accuracy, delay and robustness of OpenCV (open-source) and Tobii (commercial) eye-tracking solutions in different lighting conditions for the development of a new augmented reality desktop display.

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

- Database system development 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, Java, JavaScript, C, C++, C#, OCaml, SQL, Matlab
- **Machine Learning:** PyTorch
- **Music & Audio:** DAWs (Logic, Reaper), DAW scripting (Cubase, FL Studio, Live, Logic, MPC), MIDI, music21, JUCE, live coding (Sonic Pi, SuperCollider)
- **Computer Vision:** OpenCV
- **Web Development:** HTML, CSS, JavaScript, React, ASP.NET
- **OS:** Unix, Linux, Windows

NON-TECHNICAL SKILLS

- **Languages:** English (native), Japanese (JLPT N5), Korean (elementary)
- **Music:** Baritone Horn (ABRSM Grade 5, brass band), Piano (ABRSM Grade 5), Music Theory (ABRSM Grade 5), Mandolin (folk music, Irish traditional music)

COMMUNITY & LEADERSHIP

Cambridge University Brass Band, Cambridge, UK

- 2nd Baritone, *2019–2022*
- Elected Secretary, *2020–2021*
- Elected Social Secretary, *2021–2022*