

# Jack Ridley

## Software Engineer

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Software Engineer with a background in sound design, audio programming and DSP.  
Bridging creative sound design with rigorous engineering practices to deliver robust, interactive systems.

### Education

**MSc Sound Design** 1st University of Edinburgh | **BA (Hons) Drama** 2:1 Queen Mary University of London

### Relevant Technical Skills

- C++
- Git
- CI/CD (Jenkins)
- Java
- Unreal Engine
- DSP
- TypeScript
- Shell scripting
- Wwise
- JUCE Framework
- JavaScript
- Docker
- Unity
- Max/MSP & PureData
- Python

### Experience

#### Senior Software Engineer - Accolite Digital - Morgan Stanley (Glasgow)

2022 - present

Full-time consultant at Morgan Stanley. Full-stack engineer working on Web Applications and SaaS solutions.  
Tech Stack primarily **TypeScript** (Angular), **Java** (SpringBoot) and **SQL**

- Worked extensively on API design with Java projects.
- Led UI/UX design efforts, improving interface consistency, usability and accessibility.
- Implemented CI/CD pipelines using Jenkins for automated builds and tests.
- Optimised SQL queries for performance.

#### Sound Designer & Audio Developer - Freelance

2018 - present

Designed and implemented real-time audio systems for theatre, interactive installations, and commercial audio products.

- Developed audio plugins using both real-time synthesis and MIDI in **C++**
- Created interactive sound systems using **Unreal Engine**, **Unity**, and **Wwise**.

### Notable Projects

#### Multi Fader Drone Audio Plugin

- Solo dev project. C++ audio synthesiser plugin using JUCE framework with 2–100 oscillators and real-time DSP visualisation.
- GitHub: <https://github.com/ridleyjj/MultiFaderDrone>

#### Master's Research Project - "Sonic Gestures: Investigating Joy in Physical Sound Interactions"

- Developed an interface using **Unity** and **C#** for LeapMotion hand tracking, which converted the LeapMotion data into OSC messages receivable by Max/MSP.
- Designed 11 hand-controlled sound interactions.
- Explored trade-offs between intuitiveness and expressivity for user experience design.
- Project page: <https://jjridley.com/physicalsoundinteractions>