

Generative AI Usage Statement

This document describes the role and usage of Generative Artificial Intelligence (LLM-based assistants) during the development of this project.

- **System design**

Generative AI was used to assist in drafting and refining the unified system architecture, including the FastAPI backend, the TensorFlow and PyTorch processing pipelines, and the React/Vite frontend. All architectural decisions were reviewed, discussed, and validated by the project team.

- **Code drafting**

Initial versions of several functions and modules, covering both audio and image processing workflows, were generated with AI assistance. These outputs were systematically reviewed, debugged, tested, and adjusted by the team prior to integration. A portion of the codebase was written entirely manually.

- **Documentation**

The first draft of the technical documentation was produced with the assistance of Generative AI, and subsequently revised, corrected, and refined by the team to ensure clarity and accuracy.

- **Development guidance**

Generative AI was consulted throughout the project to explore design options, assess technical trade-offs, and support decision-making. All final implementation choices were made exclusively by the team.

All AI-assisted content was critically reviewed and, where necessary, modified by the team before inclusion in the final submission.