

Bachelor Thesis: AI-Based Audio Effects on an Embedded Device

This bachelor thesis project aims to implement an AI-based audio effects device, capable of simulating various effects, such as overdrive, distortion, and compression on an Embedded Device. The research will address the following research questions:

- What are the main driving factors for latency of AI-based digital audio effects
- What hardware and software architecture is suitable for implementing the AI-based real-time audio effects device?

To address these questions, the following steps will be taken:

1. Design and develop a hardware prototype for the AI-based audio effects device, considering signal processing, analog-to-digital conversion, etc.
2. Integrate the trained models into the device's software framework, enabling real-time inference.



For more information, please contact:

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