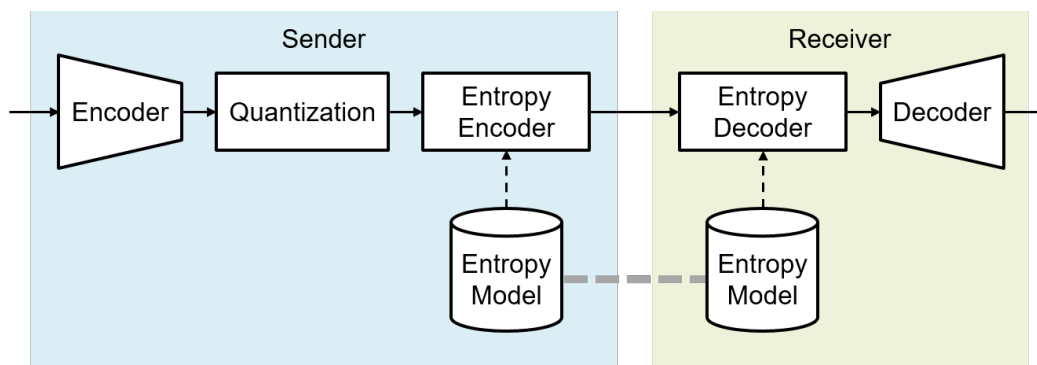




## View-Specific Video Compression

The performance of learned video compression depends on the model's ability to predict the frame distribution. For a fixed-position camera, like CCTV, the frame distribution is highly constrained, making fine-tuning the compression model beneficial for improved performance. This project focuses on constructing a codec that can easily adapt to this narrow frame distribution, resulting in higher compression quality for a specific camera and angle. Although the downside is that each camera will require its own compressor, this trade-off is worthwhile for CCTV systems that capture large volumes of data from a consistent angle and framing.

The project starts with fine-tuning learned video compression models, such as [1, 6, 2, 4, 7, 5, 3], on video data from fixed camera positions. The goal is to develop a compression model that achieves fine-tuned performance without requiring extensive fine-tuning. Instead, it would rely on a few reference videos from the dataset to adapt effectively.



**Requirements:** Strong programming skills in languages such as Python, along with a keen interest in learned compression.

Weekly meetings will be scheduled to address questions, discuss progress, and brainstorm future ideas.

### Contact

In a few short sentences, please describe your interest in this project and any relevant coding experience or background (e.g., projects or coursework).

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