

## Introduction and Motivation

### Video Content Challenge

- Vast OTT libraries, but hard to navigate
- Slow, frame-by-frame traditional methods
- Privacy risks with cloud-based processing

## From Patent to Real-Time Edge Deployment

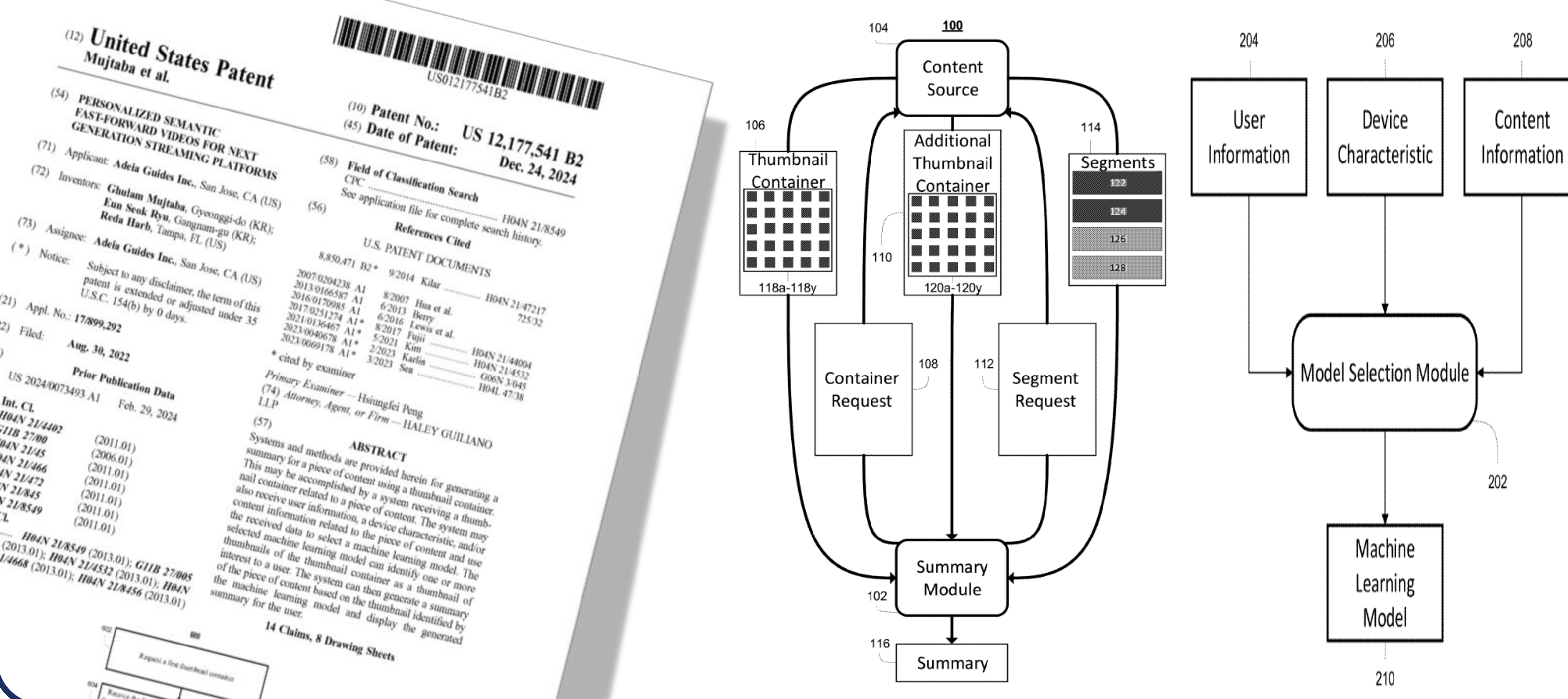
### Key Problems Addressed

- Inefficient traditional processing
- Generic summaries ignore user preferences
- Privacy concerns with cloud-based methods

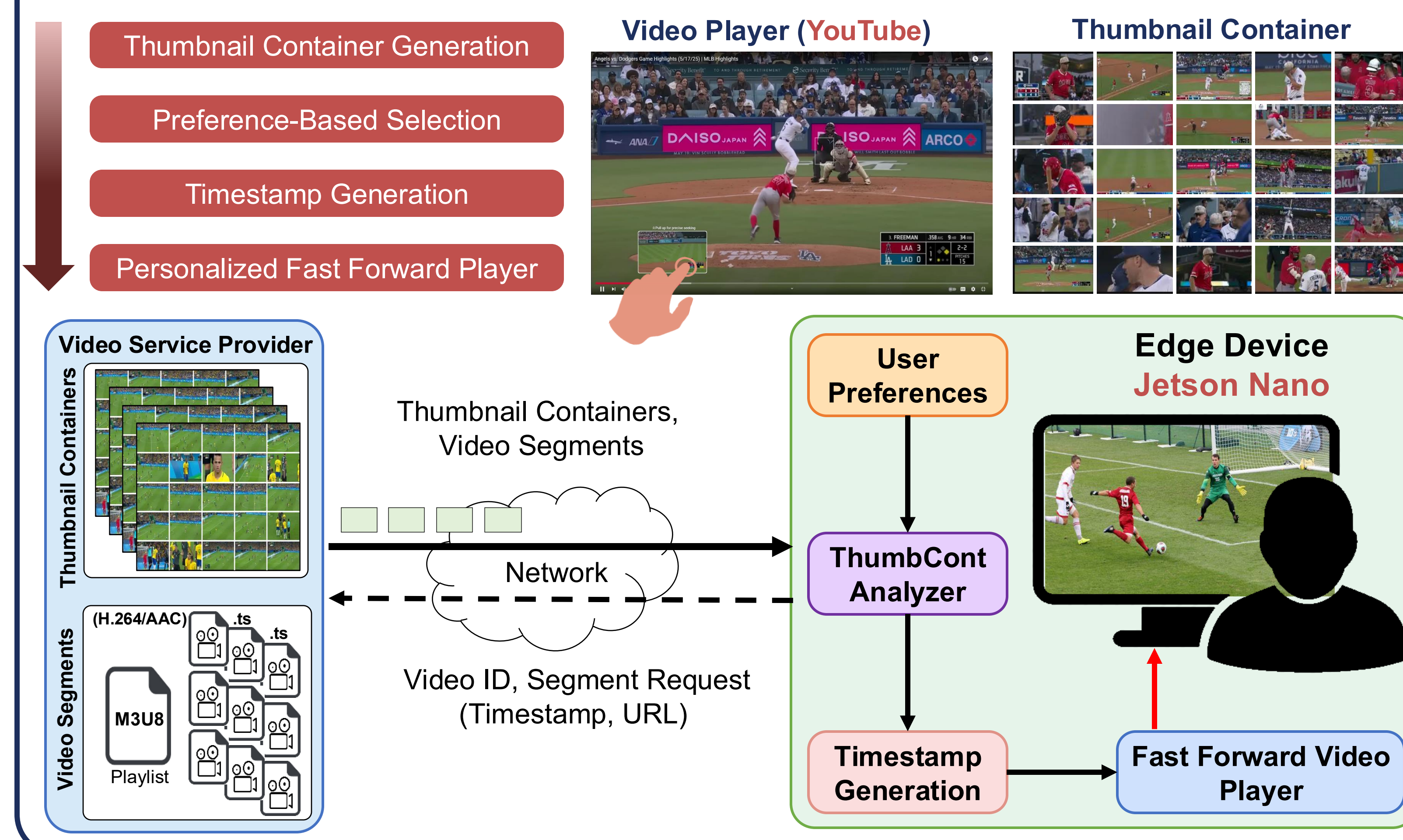
## Patent Highlights

Patent Number: **US 12,177,541 B2**

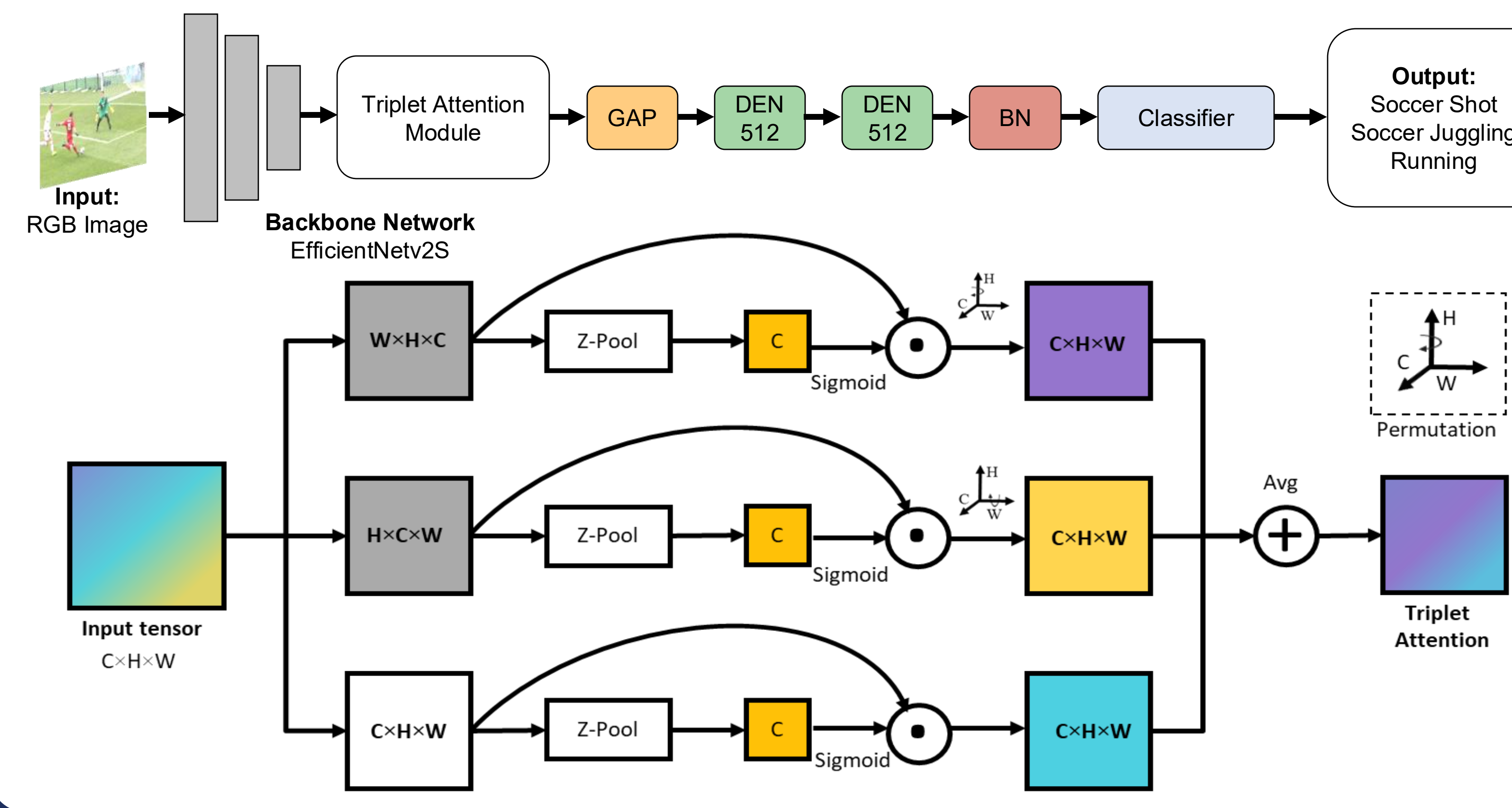
*Personalized Semantic Fast-Forward Videos for Next Generation Streaming Platforms*



## Proposed Method



## Thumbnail Container Analyzer



## Conclusion and Demo

### Key Innovations

- Edge Processing:** complete processing on-device
- Personalized Experience:** Delivers a personalized experience compared to generic summaries.
- Temporal Continuity:** Maintains narrative flow unlike keyframe methods

### Research Achievements

- Computational Speed:** **34.9x faster** than HECATE and **3.7x faster** on LCR devices
- Privacy-Preserving:** No cloud processing required, all data stays local
- Content Versatility:** Effective across multiple video genres
- Storage Efficient:** **97%** reduction in storage requirements (**612MB** → **14MB**)

For more details



Visit our real-time Live Demo!  
(Friday June 13, 10:30 AM ~ )

