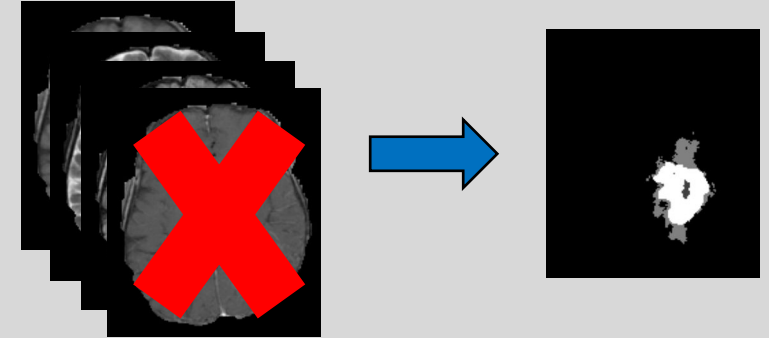


Motivation

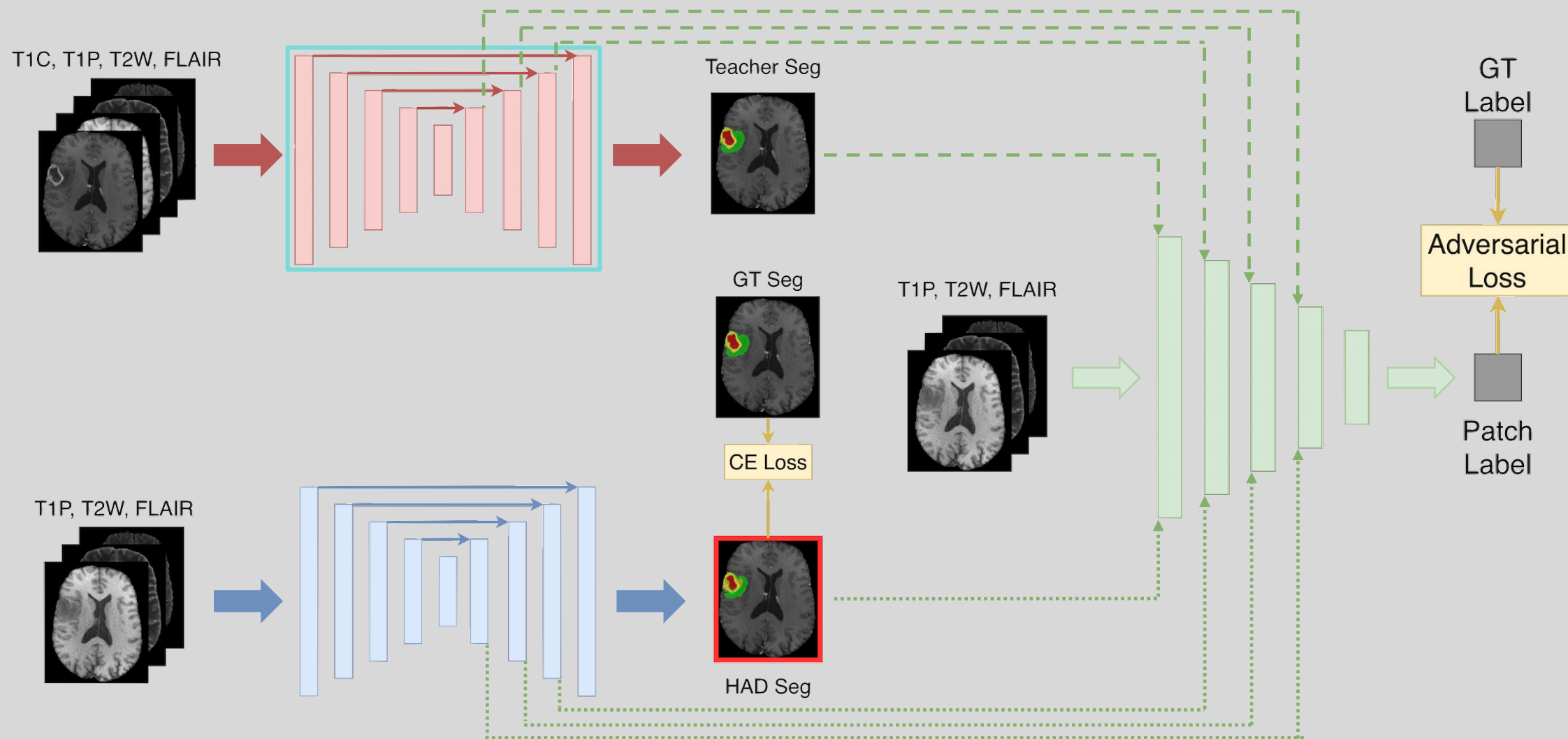
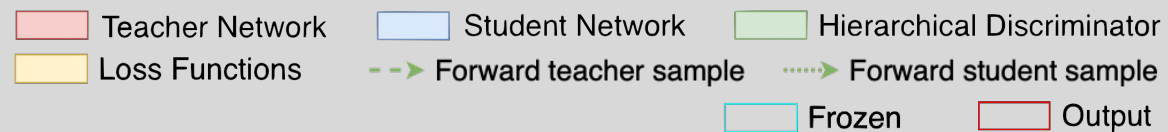
- Contrast agent injection (e.g., Gadolinium)
 - No longer thought to be safe for patients
 - Increases invasiveness
- Focus on developing a network capable of providing improved enhancing brain tumor segmentations when post-contrast images are unavailable.



Novelty

- Teacher network distills knowledge to a student network, via a hierarchical discriminator, to produce better segmentations when crucial information is missing.
 - While adversarial KD techniques exist, they are not hierarchical.
 - While hierarchical discriminators exist, they are not used in the context of KD.
 - Therefore, HAD-Net is the first method to effectively combine these two components to provide a KD technique capable of better bridging large domain gaps.

HAD-Net



Results

