Redefining MRI:
From Image to Insight

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인공지능의료영상 (AI for Medical Imaging & Applications 2)

SY07-3

Binary Flow Matching for Precise Medical Image Segmentation

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This lecture introduces Binary Flow Matching as an iterative generative framework for medical image segmentation. It covers the motivation behind flow-based segmentation, the differences from conventional and diffusion-based approaches, and its potential for producing accurate, stable, and structurally consistent segmentation results.

The lecture also covers binary-state modeling, direct mask prediction, trajectory regularization, and experimental findings on accuracy, efficiency, and structural consistency in vascular segmentation.

Keywords: *Flow matching, Medical Image Segmentation, Vascular Segmentation*