# Graph-Segmenter: Graph Transformer with Boundary-aware Attention for Semantic Segmentation

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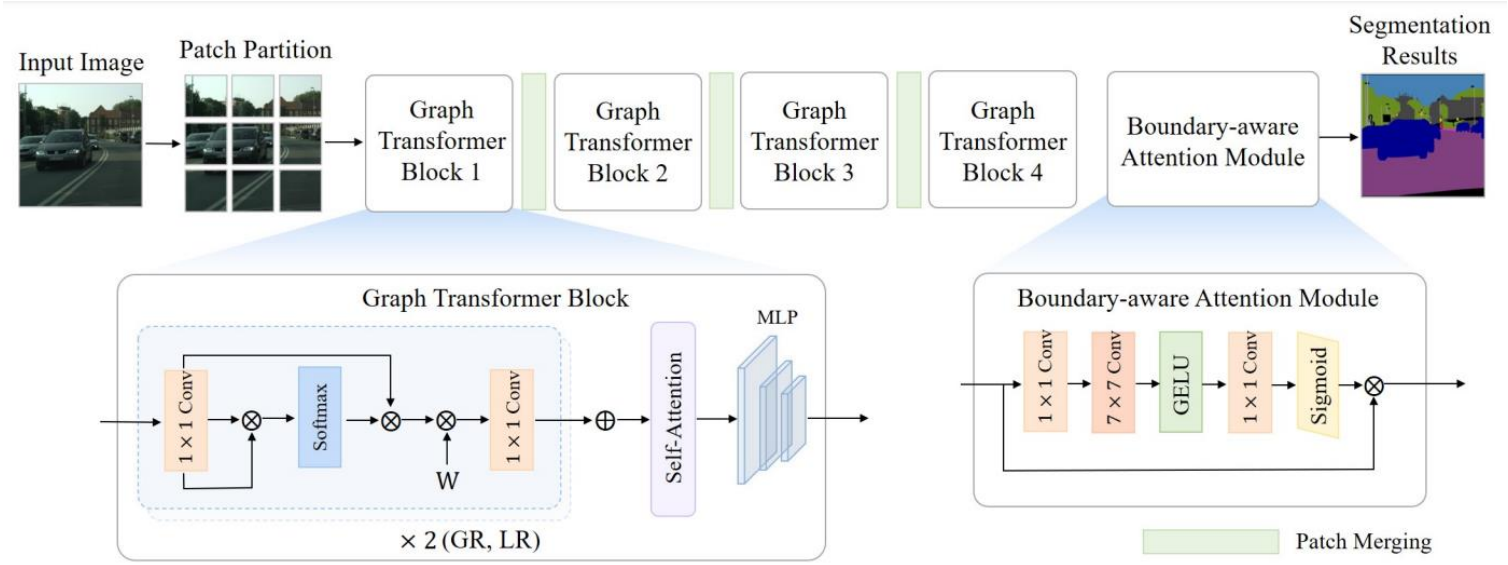
# Problems & Ideas

- Problems of transformer-based semantic segmentation approaches:
  - It was not fully utilized since the relation modeling between windows was not the primary emphasis of previous work.
- Ideas: A Graph-Segmenter, including a Graph Transformer and a Boundary-aware Attention module, which simultaneously models the more profound relation between windows in a global view and various pixels inside each window as a local one, and for substantial low-cost boundary adjustment



# Main Contributions

- Contributions:
  - A novel relation modeling method acting on sliding windows, using graph convolutions to establish relationships between windows and pixels inside each window;
  - An efficient boundary-aware attention-enhanced segmentation head that optimizes the boundary of objects in the semantic segmentation task;
  - A lightweight local information-aware attention module that allows for improved boundary segmentation.