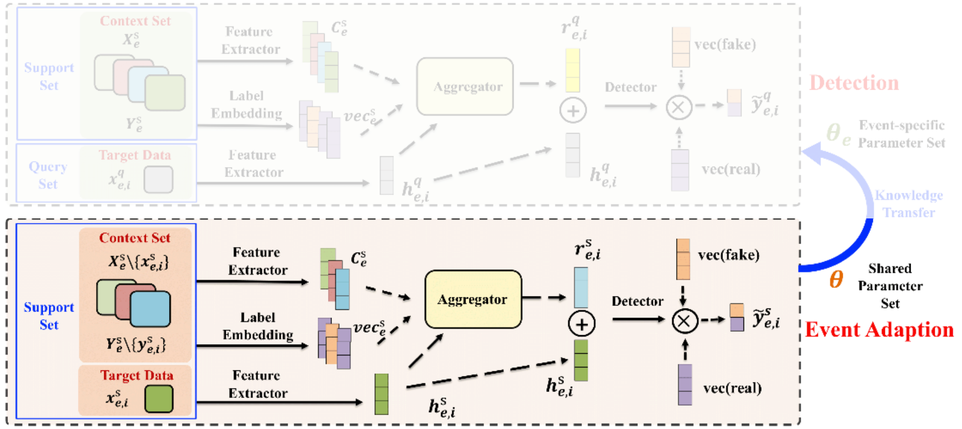
Methodology

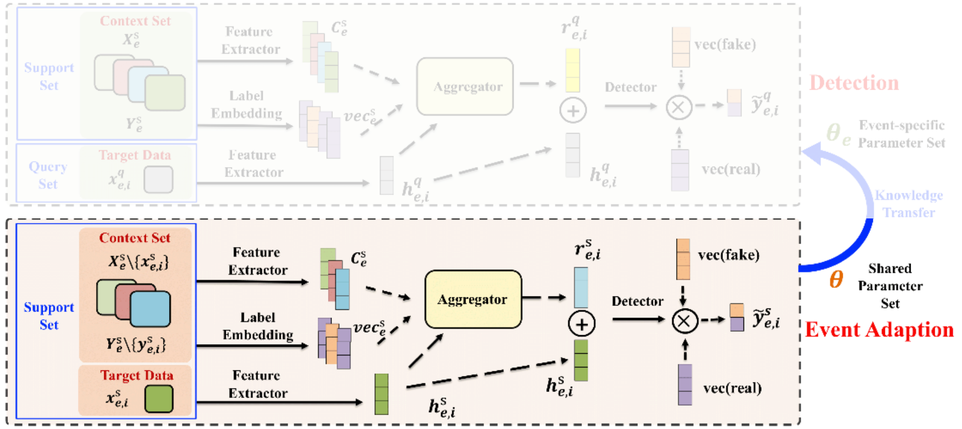
Event adaption stage



- Take i-th support data $\{x_{e,i}^s, y_{e,i}^s\}$ as an example.
- In the event adaption stage, $\{x_{e,i}^s, y_{e,i}^s\}$ is used as target data and rest of support set $\{\mathbf{X}_e^s, Y_e^s\} \backslash \{x_{e,i}^s, y_{e,i}^s\}$ are used as context set accordingly.
- The context set and target data $x_{e,i}^s$ are fed into the proposed model to output the prediction.

Methodology

Event adaption stage



- The loss can be calculated between the prediction $\hat{y}^s_{e,i}$ and the corresponding label $y^s_{e,i}$.
- θ: all parameters included in the proposed model.
- The event adaption objective function on the support set can be represented as
  - $$\mathscr{L}^s_e = \sum_i \log p_\theta \left(y^s_{e,i} \mid \{\mathbf{X}^s_e, Y^s_e\} \backslash \left\{ x^s_{e,i}, y^s_{e,i} \right\}, x^s_{e,i} \right)$$
- Then update parameters θ one gradient descent updates on $\mathscr{L}^s_e$ for event e.
  - $\theta_e = \theta - \alpha \nabla_\theta \mathscr{L}^s_e$