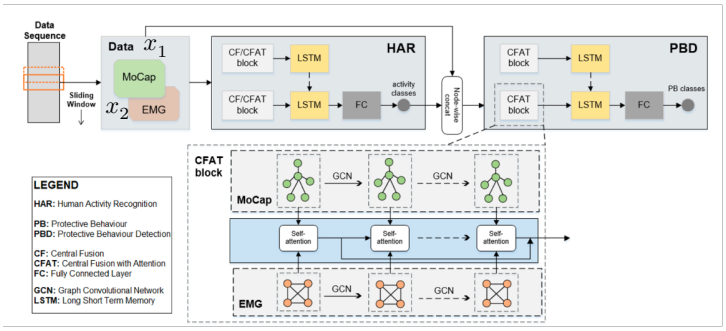
17 Exploring Multimodal Fusion for Continuous Protective Behavior Detection [17]

Model Architecture



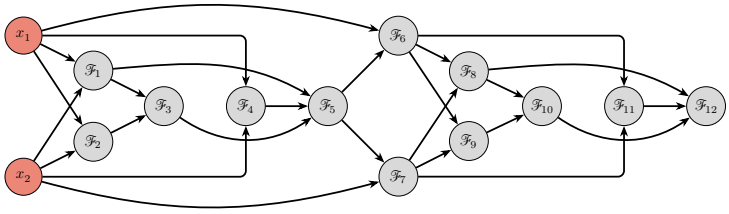
Fusion Formulas

$\mathcal{F}_1 = \oplus(x_1^3, x_2^3)$ $\mathcal{F}_2 = \oplus(x_1^6, x_2^6)$ $\mathcal{F}_3 = \boxplus(\mathcal{F}_1^3, \mathcal{F}_2^0)$ $\mathcal{F}_4 = \oplus(x_1^9, x_2^9)$

$\mathcal{F}_5 = \boxplus(\mathcal{F}_1^2, \mathcal{F}_3^3, \mathcal{F}_4^0)$ $\mathcal{F}_6 = \oplus(x_1^0, \mathcal{F}_5^4)$ $\mathcal{F}_7 = \oplus(x_2^0, \mathcal{F}_5^4)$ $\mathcal{F}_8 = \oplus(\mathcal{F}_6^3, \mathcal{F}_7^6)$

$\mathcal{F}_9 = \oplus(\mathcal{F}_6^6, \mathcal{F}_7^6)$ $\mathcal{F}_{10} = \boxplus(\mathcal{F}_8^2, \mathcal{F}_9^0)$ $\mathcal{F}_{11} = \oplus(\mathcal{F}_6^9, \mathcal{F}_7^9)$ $\mathcal{F}_{12} = \boxplus(\mathcal{F}_8^2, \mathcal{F}_{10}^2, \mathcal{F}_{11}^0)\rightarrow$

Fusion Graph Representation



Fusion Analysis

How Many: Single or Multiple?	Multiple, 12
Number of Fusion Flows	3
Multiple Type Sudden, Gradual or Multi-Flow?	Sudden
|Sudden| Synchro?	Yes