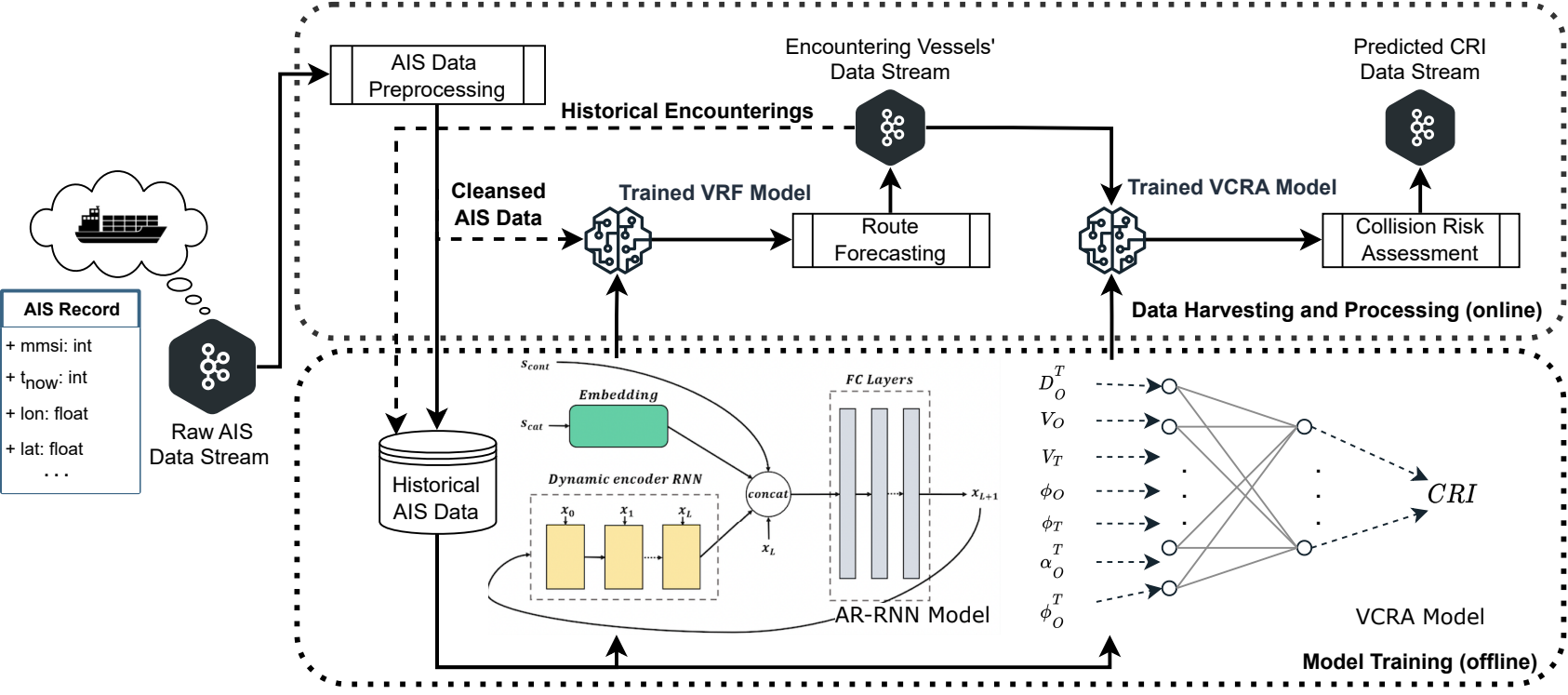
AIS Data Preprocessing
Encountering Vessels' Data Stream
Predicted CRI Data Stream
Historical Encounterings
Cleansed AIS Data
Trained VRF Model
Route Forecasting
Trained VCRA Model
Collision Risk Assessment
Data Harvesting and Processing (online)
AIS Record
+ mmsi: int
+ t_now: int
+ lon: float
+ lat: float
...
Raw AIS Data Stream
Historical AIS Data
Embedding
Dynamic encoder RNN
concat
FC Layers
AR-RNN Model
CRI
VCRA Model
Model Training (offline)