

## MEAND Dataset Construction

Add weather & waterway info



Environment  
augment

Weather  $\varepsilon_t$ :  
Bridge  
location  $\zeta_t$ :  
Waterway  
width  $\eta_t$ :



Question-Answer  
pair construction



Labeled  
questions

MEAND:13000+ QA pairs

**MEAND**

## FND Dataset Construction

Cleaning &  
extraction



Raw data

Location  $\rho_t$ :  
Time stamp  $t$ :  
Latency  $L_t$ :



Q-A Pair



Labeled  
questions

**Q**: At 9:00 a.m. on June 1, with a temperature of 25.77°C, rainfall 0.4mm, wind speed 0.9m/s with bridge obstruction. Predict ship-to-shore E2E communication latency at position 30.0543°N, 113.973°E.  
**A**:The predicted delay is 230.7 ms....