A System for the Monitoring, Analysis, and Mitigation of Urban Noise Pollution

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The problem

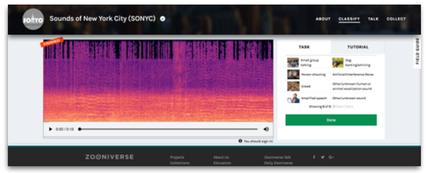
Estimated 9 of 10 adults in NYC exposed to harmful levels of noise

Noise pollution can result in:

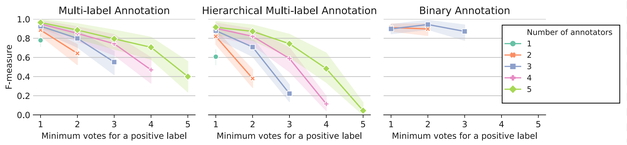
SLEEP LOSS | HEARING LOSS | LEARNING IMPAIRMENT | REDUCED PRODUCTIVITY | STRESS

Citizen science driven noise source labeling

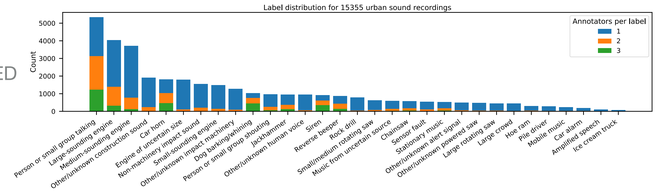
DATA COLLECTION

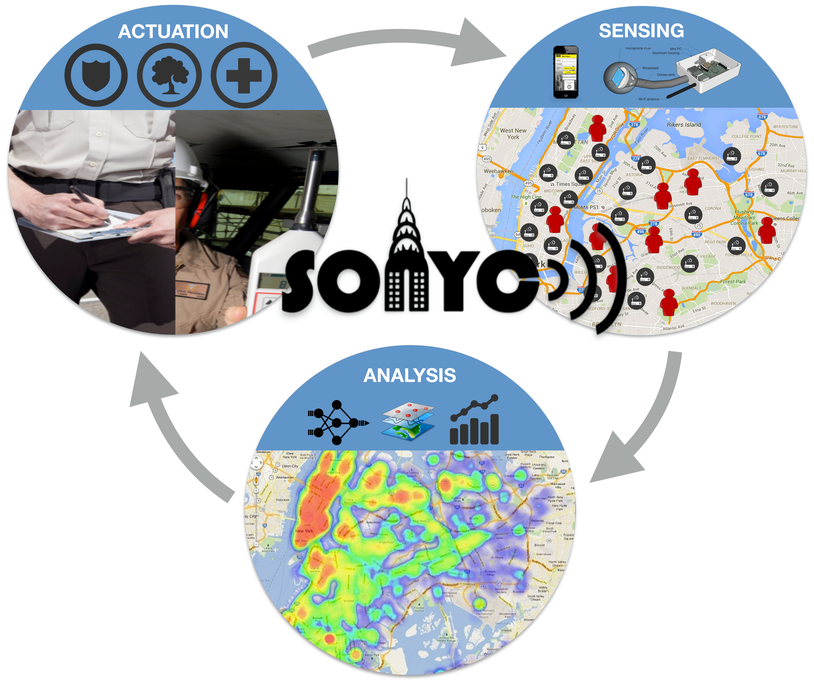


TASK ANALYSIS

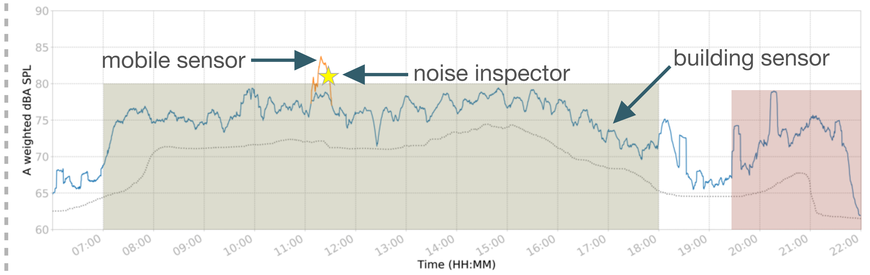


LABELS COLLECTED



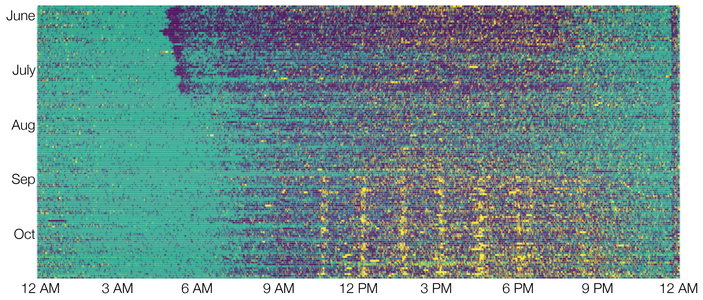


60 advanced acoustic sensors deployed across NYC

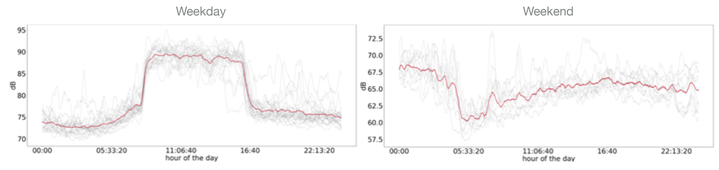


Large scale noise data analytics

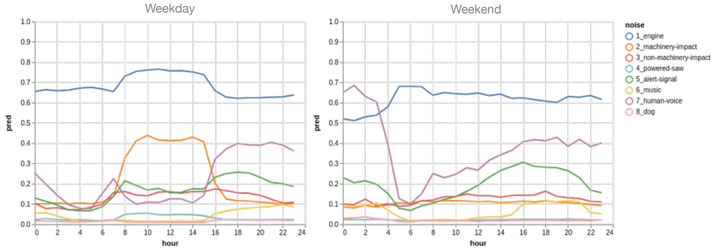
FEATURE ANALYSIS



SPL ANALYSIS



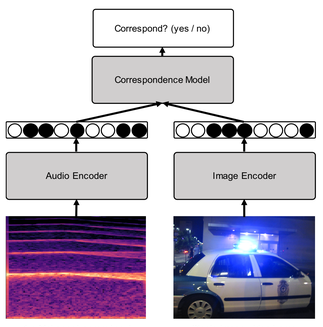
CLASS PREDICTION ANALYSIS



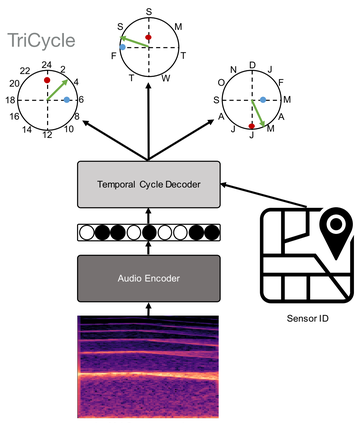
Deep machine listening at the network edge

REPRESENTATION LEARNING

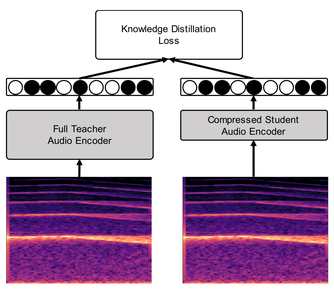
OpenL3



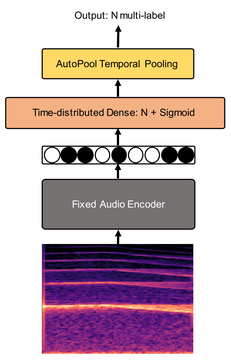
TriCycle



EdgeL3



DOWNSTREAM MODELS



Partnered with key city agencies

NYC Environmental Protection | NEW YORK CITY DOT | NYC Health | DOWNTOWN BROOKLYN | NEW YORK UNIVERSITY | MARL | NYU CUSP | THE OHIO STATE UNIVERSITY | NSF