GRAPH SCATTERING CONVOLUTIONAL NETWORK

WCAI/EARTH NETWORKS CHECK-IN 2

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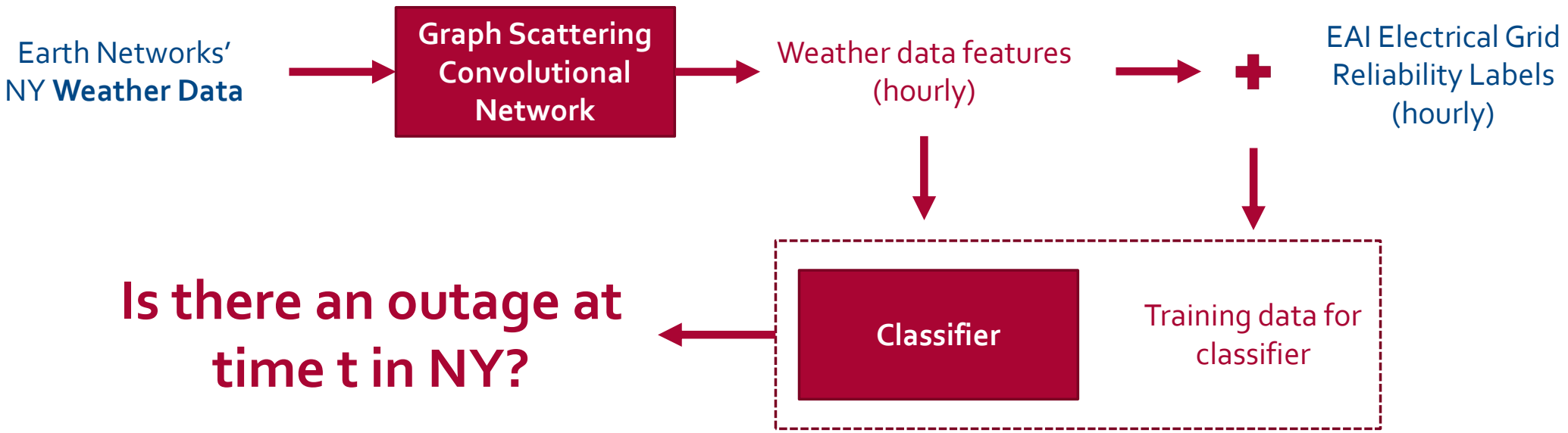
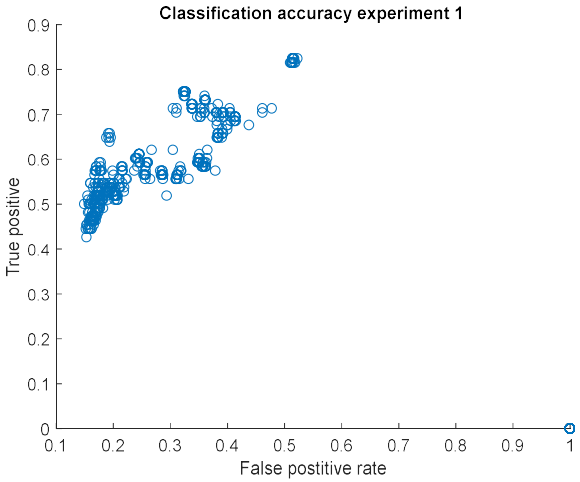
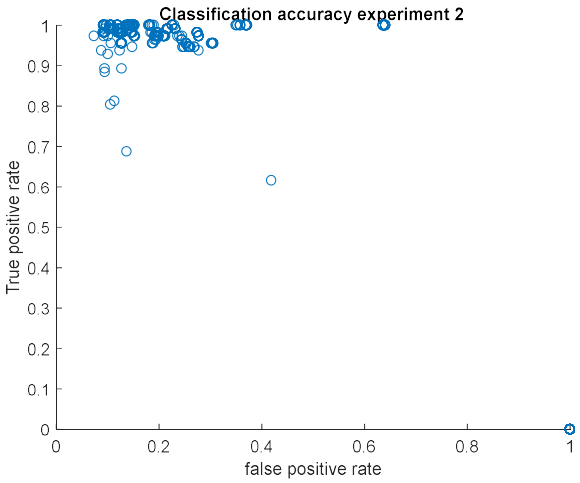
Recap: What we use the data for







Recap: Check-in results

- Using Earth Networks NYC weather data and EIA reliability data for NY between 2011-2013
- Used two Earth Networks dataset fields
  - 1. temperature – **84.2% accuracy**
  - 2. sea-level pressure – **94.56% accuracy**
- Much better performance with pressure data
  - Likely a better storm predictor
- Optimally combine different weather measurements
- Try other graph CNN architectures

Progress since last check-in

Continued to tune parameters

- Goal was improve accuracy for a single field above **96%**
- So far best results for data field "SeaLevelMBar"
  - **96.1% accuracy** – 1.5% point improvement
  - Low false negative rate allows us to **predict all outages** with a 0.5 false positive rate

Implemented classification of data using multiple fields

- Best result with **92% accuracy**
- Working on debugging in order to improve accuracy
  - Theoretically should be at least 96%