

# Theme for Final Report

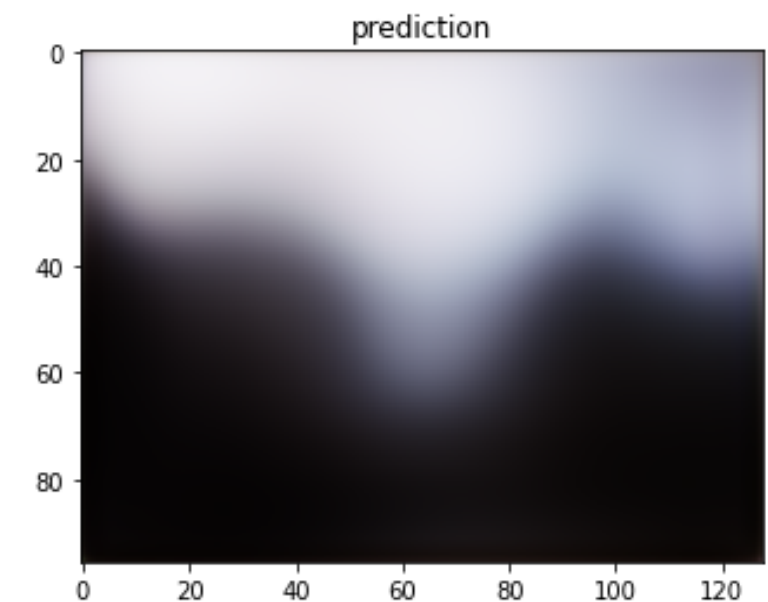
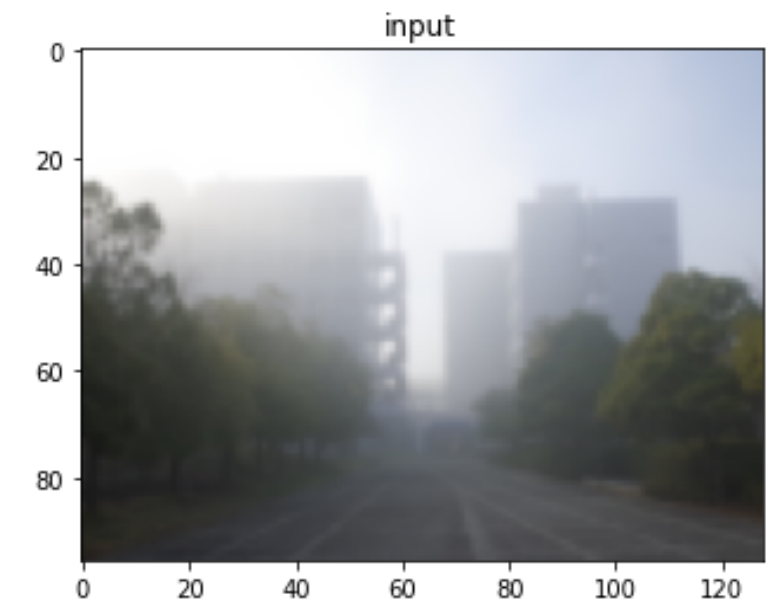
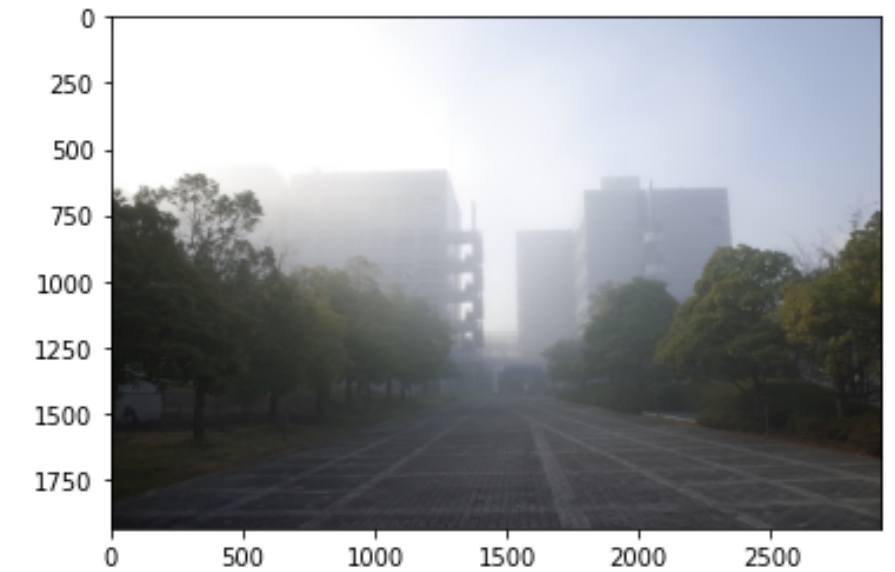
John Benedict Du

# About the Project

**Goal: Improvement of Defogging**

## OBJECTIVES

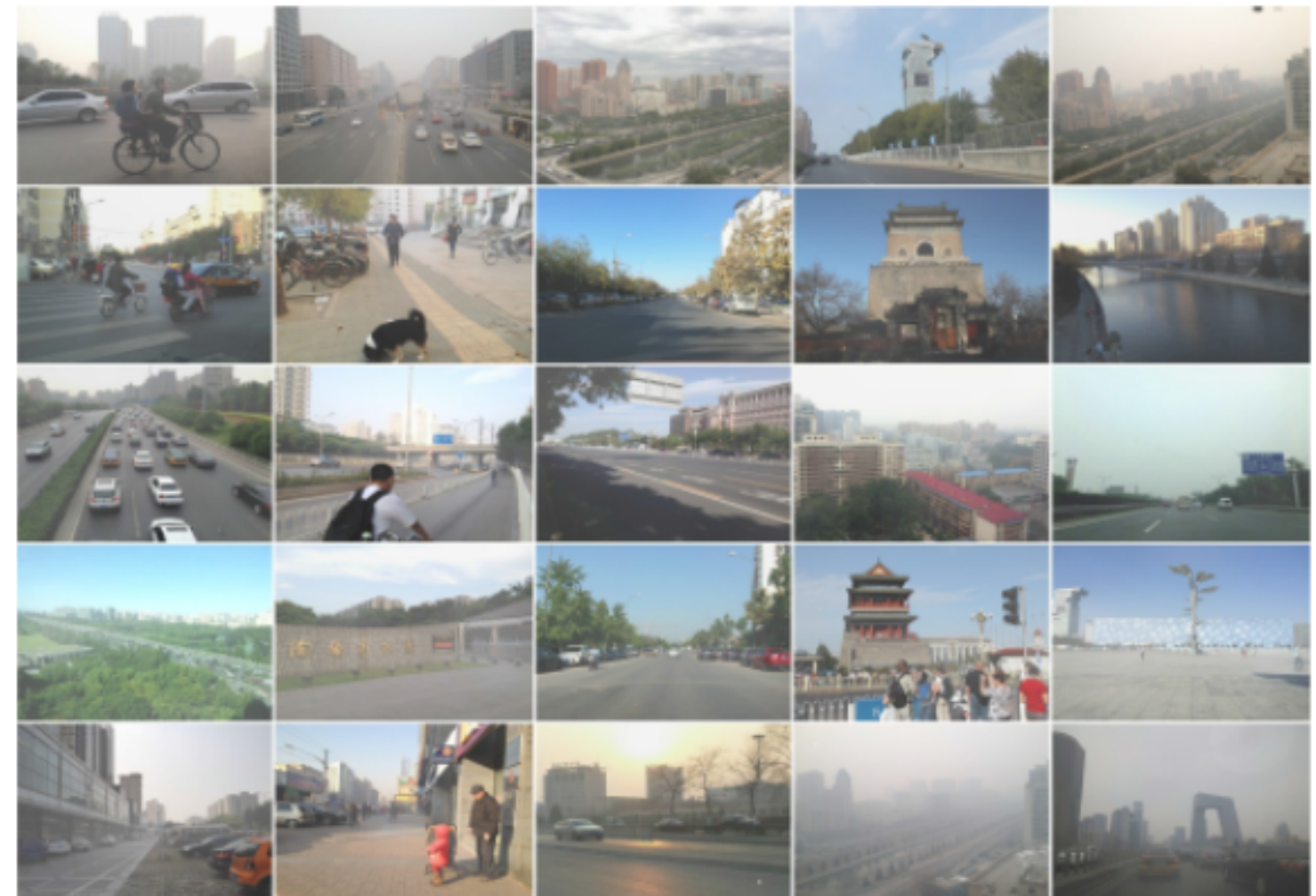
- Use RESIDE Dataset
- Principled S2R Dehazing Framework
- AECR-Net as the Backbone



# RESIDE Dataset

● Outdoor Training Set

Dataset Examples:



OTS



# Principled S2R Dehazing

Framework applicable to generalize most of the existing dehazing models to the real domain.



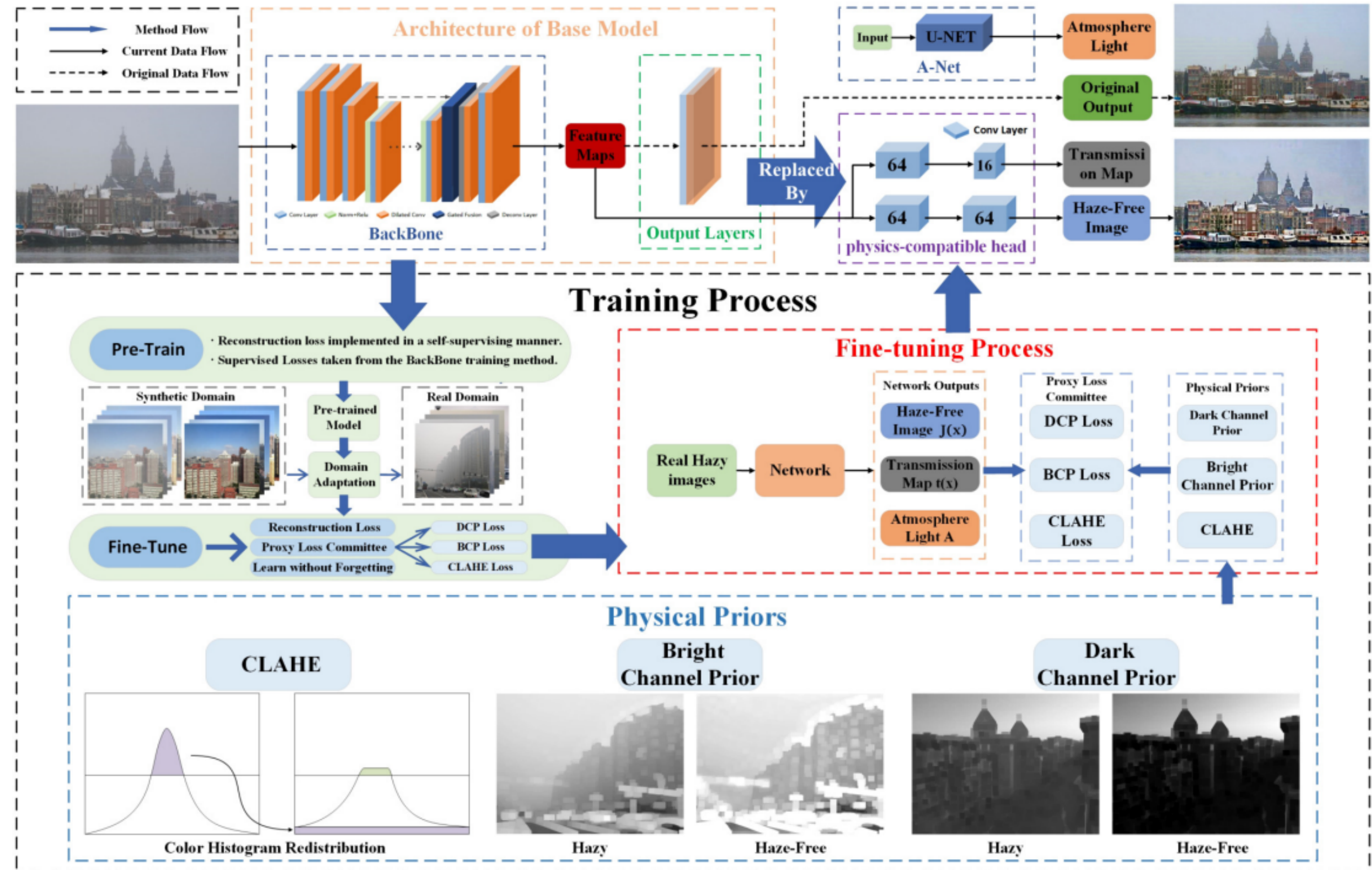
(a) Hazy image

(b) DAD [34]

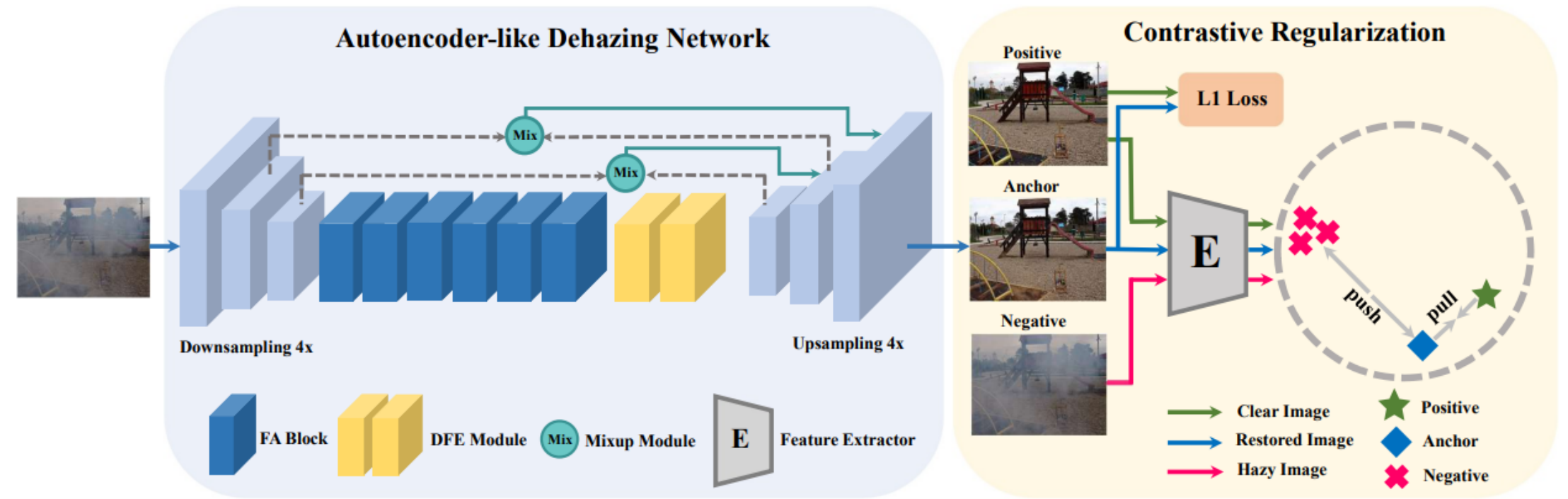


(c) MSBDN [6]

(d) Ours







# AECR-Net



Single image dehazing, which consists of contrastive regularization (CR) and autoencoder-like (AE) network.



(a) Hazy input

(b) Only L1 loss [34]

(c) Prior [42]






(d) KDDN [23]

(e) Our CR

(f) Ground-truth

Figure 1. Comparison with only positive-orient supervision.

# Project Plan

JAN 8 - 11	JAN 12 - 14	JAN 15 - 17	JAN 18 - 19	JAN 20 - 21
Setup Local Python Environment	Study & Get AECR-Net to Work		Testing & Debugging	
Download RESIDE Dataset	Study & Get Principled S2R Dehazing to Work		Data Gathering	
	Modify AECR-Net to work as PSD backbone		Code Clean Up & Documentation	
		Train with Model RESIDE Dataset		Final Report

# Thank you!

## References

- RESIDE
  - <https://sites.google.com/view/reside-dehaze-datasets/>
- AECR-Net
  - <https://github.com/GlassyWu/AECR-Net/>
- PSD
  - <https://github.com/zychen-ustc/PSD-Principled-Synthetic-to-Real-Dehazing-Guided-by-Physical-Priors>

