Introduction

Motivation

➢ Existing raindrop removal datasets:

(a) Qian   (b) RainDS Quan   (c) RobotCar Porav   (d) Windshield
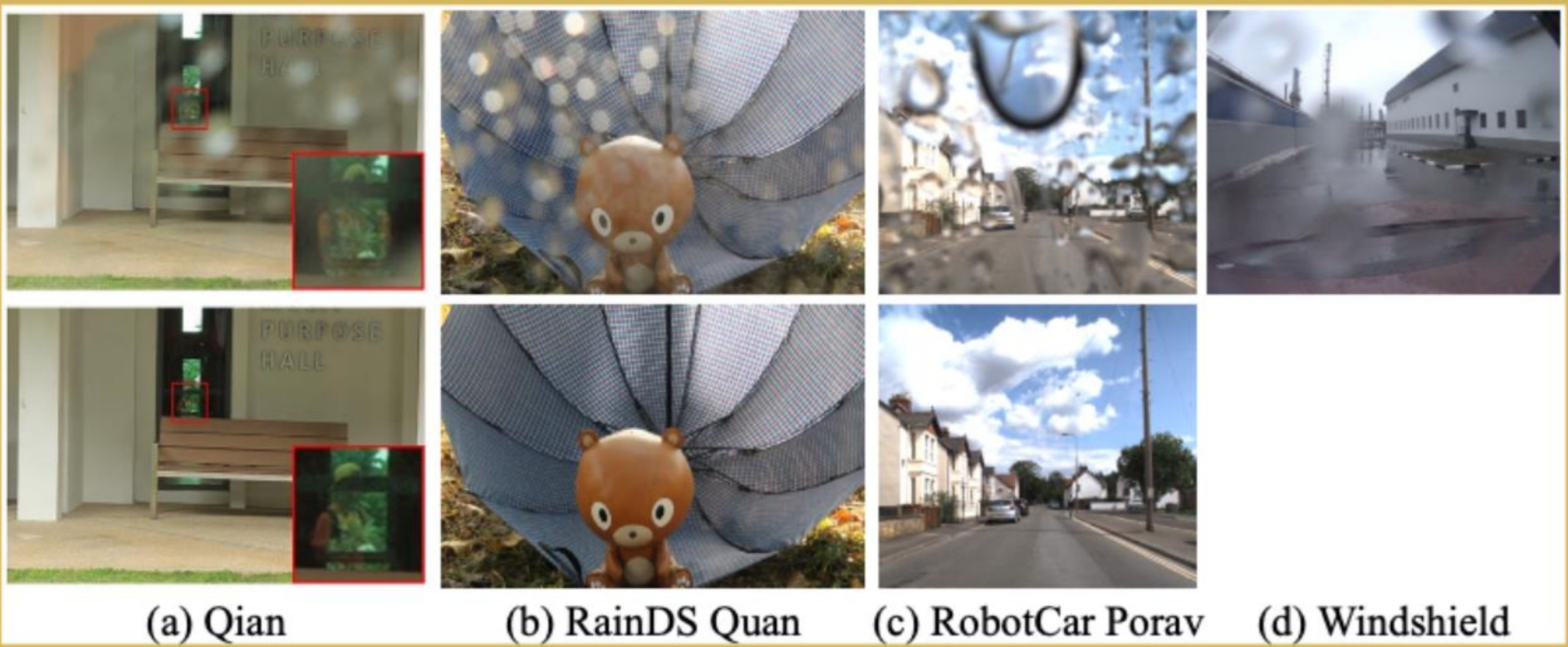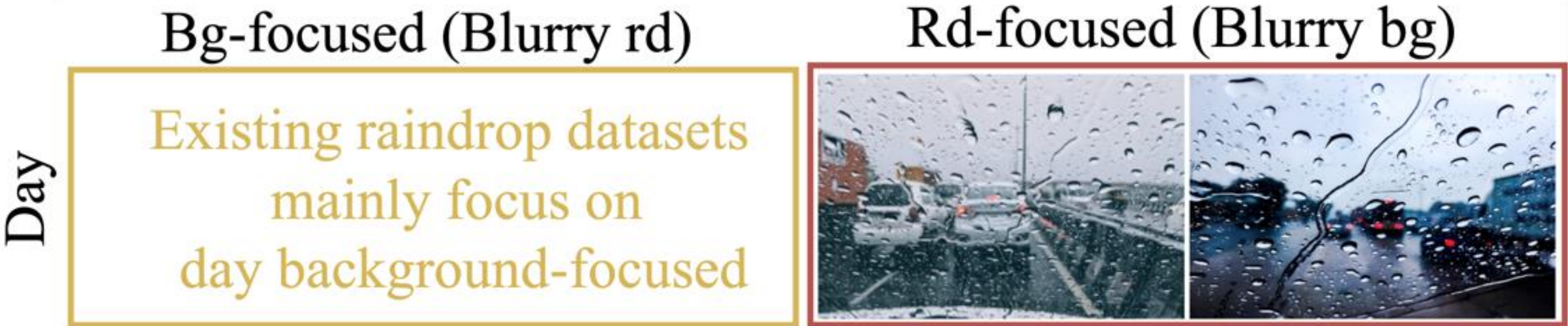
Main limitations: 1. ❌ raindrop-focused, 2. ❌ night raindrops.

Raindrop Datasets Problems

➢ Raindrop-focused:

Rd = Raindrop, Bg = Background

Bg-focused (Blurry rd)   Rd-focused (Blurry bg)

Existing raindrop datasets mainly focus on day background-focused
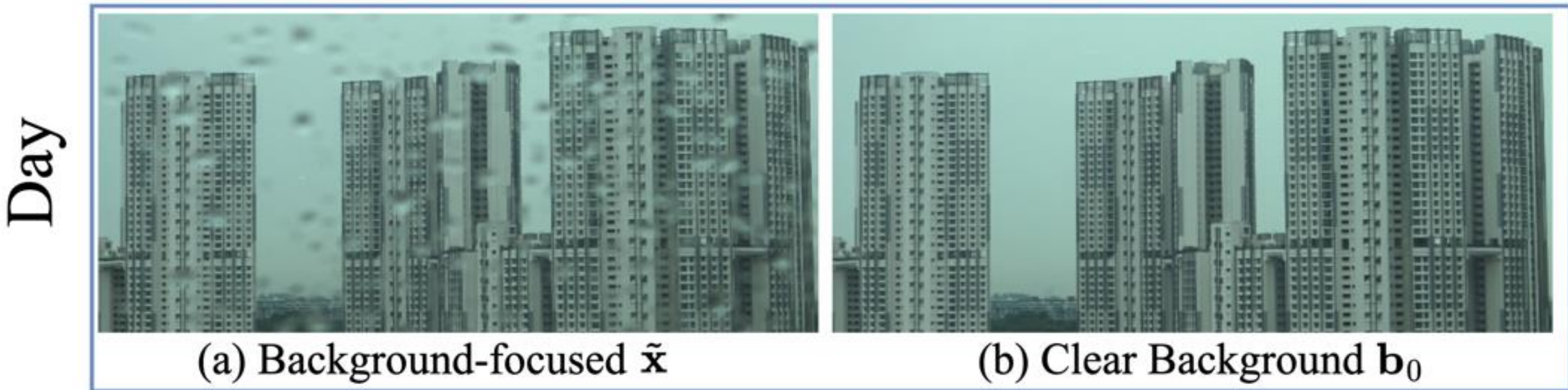
➢ Night raindrops:

Main contributions: 1. ✓ raindrop-focused, 2. ✓ night raindrops.

Contributions

Contribution 1: Raindrop-focused

Background-focused (Blurry raindrop)

(a) Background-focused $\tilde{\mathbf{x}}$ (b) Clear Background $\mathbf{b}_0$

Raindrop-focused (Blurry background)

(a) Raindrop-focused $\tilde{\mathbf{x}}$ (b) Blurry background $\mathbf{x}_0$ (c) Clear background $\mathbf{b}_0$

Contribution 2: Night Raindrops

Background-focused (Blurry raindrop)

(a) Background-focused $\tilde{\mathbf{x}}$ (b) Clear Background $\mathbf{b}_0$

Raindrop-focused (Blurry background)

(a) Raindrop-focused $\tilde{\mathbf{x}}$ (b) Blurry background $\mathbf{x}_0$ (c) Clear background $\mathbf{b}_0$