{-1} AI Challenge

Team-19

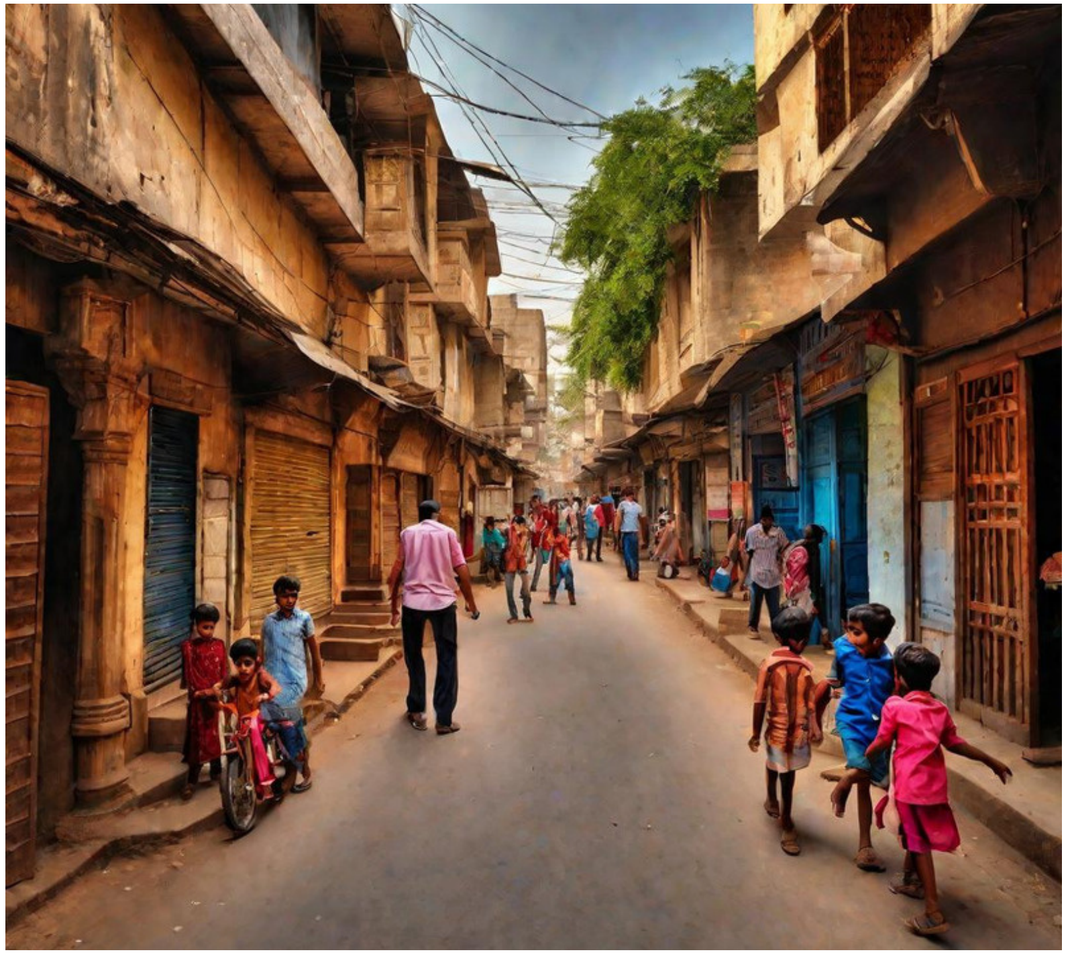
The Problem Statement

Challenge 1 :

Generating Synthetic Dataset of Indian Roads

- Develop an algorithm which produces photorealistic and context-informed synthetic images of Indian driving scenarios. The algorithm will need to be controlled by visual or textual prompts or any novel control method.

Sample Data

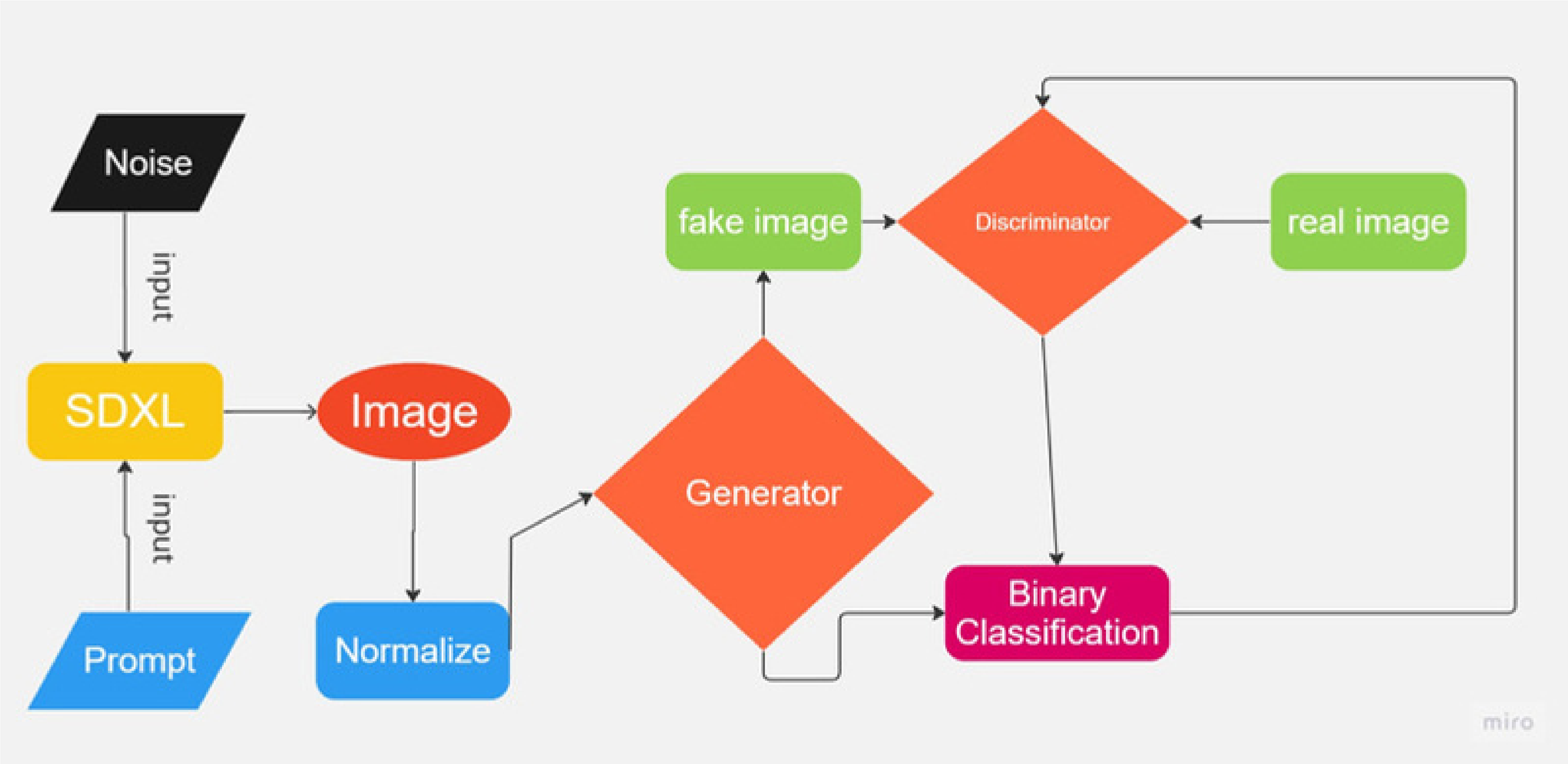


Sample Data

Sample Data

Drive Link for all Data ...

Architecture/Workflow



Novelity

Innovation

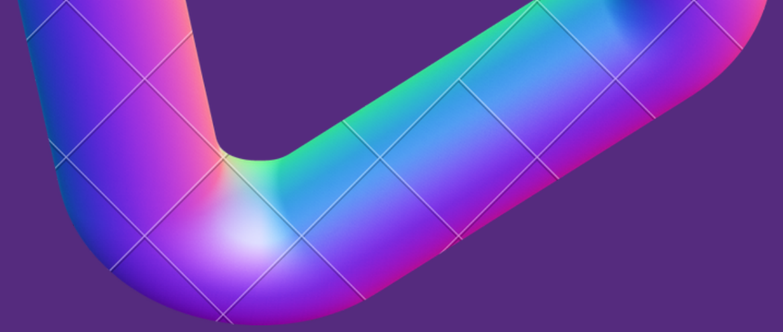
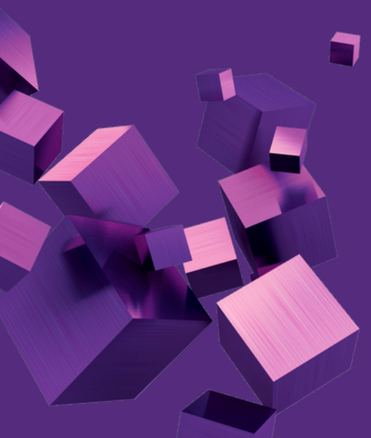
1. Creativity: Leveraging AI for high-quality image generation and diverse data synthesis.
2. Diversity: Enhancing dataset diversity for robust ML models.
3. Photorealism: Pursuing authentic AI-generated content across applications.

Reality

- Resource-Intensive
- Quality Limitations
- Evaluation Challenge
- Resource Constraints

What to Improve ?

1. **Diverse Dataset:** Expand your real-world image dataset to boost model understanding.
2. **Transfer Learning:** Begin with a broader dataset for transfer learning.
3. **Advanced GANs:** Consider models like StyleGAN, ProGAN, or BigGAN for higher image quality.
4. **Hyperparameter Optimization:** Fine-tune hyperparameters for better results in image generation.



Thank You !