

Project Title:

Development of a Reduced-Order-Model from Synthetic CFD Data using Convolutional Neural Network

Weekly Progress Report

Week 5: (Mar 10 - Mar 13, 2025)

Tasks Completed:

- Started CNN model design for ROM.
- Preprocessed dataset for model input.
- Initial trials with small dataset samples.

Challenges Faced:

- Selecting optimal CNN architecture for spatial reduction.
- Managing computational efficiency during initial training.

Tasks Planned for Next Week:

- Train CNN model using full dataset.
- Evaluate model performance and optimize hyperparameters.
- Compare results with baseline CFD data.