Personal Introduction

- I am Jay Sandesara, and I finished my PhD at UMass-Amherst in December 2024.

- During the PhD, I led the development of the off-shell Higgs boson analysis in ATLAS using Simulation-Based Inference (SBI) techniques.

- Joined the Kyle Cranmer group at UW-Madison as a Postdoctoral researcher.

Research Goals

- The techniques developed during my PhD make it practical to perform full-scale LHC analysis using SBI.

- As part of IRIS-HEP, I plan to work on the development of an analysis system for SBI, tailored on the LHC use-case, using experience from my PhD work.

- Also planning to work on the development of more robust uncertainty parameterizations both for SBI and histogram-based techniques at the LHC.