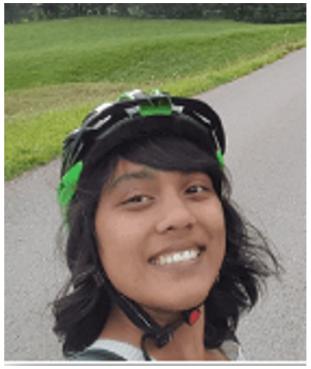
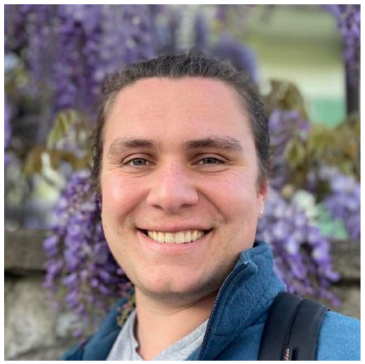
Total presentation time is 3 minutes

PSL-GAN

(Physical Sciences Laboratory-Generative Adversarial Network)

Team Members

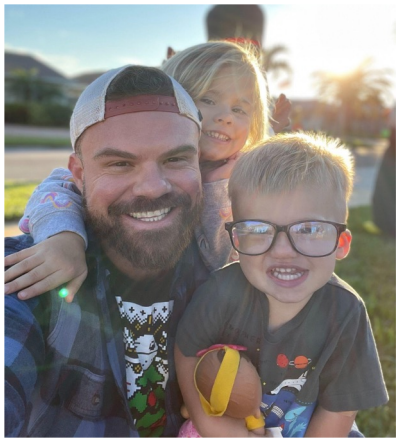
Pragallva Barpanda[1,2] **Manmeet Singh[3,4,5]** **Rochelle Worsnop[1,2]**


Nachiketa Acharya[1,2] **Kyle Hall[1,2]** **Kinya Toride[1,2]**

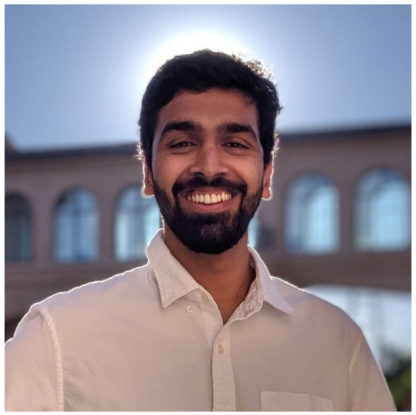
1 NOAA/Physical Sciences Laboratory, Boulder, CO
2 Cooperative Institute for Research in Environmental Sciences at the University of Colorado, Boulder
3 Indian Institute of Tropical Meteorology, Ministry of Earth Sciences, Pune, India
4 Jackson School of Geosciences, University of Texas at Austin, TX
5 IDP in Climate Studies, Indian Institute of Technology Bombay, Mumbai, India

Mentors



Kaleb Smith

Senior Data Scientist NVIDIA Higher Education Research



Akshay Subramaniam

Senior AI Developer Technology Engineer, NVIDIA

Your app

Tell us about your application:

- What's the algorithmic motif--Stochastic Weather Generator using GAN
- Libraries--PyTorch,Matplotlib,Panda,numpy,seaborn
- Language--Python
- Which application module/function are you focusing on--Training GAN
- GPU port path- -CUDA

Goals

What would you like to achieve by the end of the week?

Technological:

- Learn how to use GPUs to run code that utilizes pandas, numpy, xarray, scikit-learn, pytorch, etc. along with running code within a container setup.
- Overall become familiar with GPU terminology & tools (Nsight, RAPIDS, CUDA) and when these components are most useful to implement
- Run many more epochs of the GAN with GPUs to improve convergence and accuracy of the network
- Perform hyperparameter tuning for a GAN