

# **KWOC – KHARAGPUR WINTER OF CODE!**

→ **About Kwoc** -> [Kharagpur Winter of Code](#) (KWOC) is one month long program to introduce newbies to the world of open source. Anyone can register as a student, and a mentor as well. The students had to work on source codes which were hosted on [Github](#), a web-based version control and repository hosting service. We were to code on some of the listed issues or we could create issues on our own. We had to fork it, edit the program, and send a 'Pull Request', which is a request for merging the work with it's original version.

KWOC Official Website: <http://kwoc.kossiitkgp.in/>

KWOC Leader board Website: <http://kwoc.kossiitkgp.in/leaderboard>

Writer's personal Github Link: <https://github.com/rootally>

Writer's personal Github Handle: [rootally](#)

→ **Choosing a Project** -> I came to know about kwoc when i was talking with my friend at a cafe and asked me if i'm participating in kwoc, i had no idea about it at that time. Then i started to look upon it and found some really interesting projects on the website, i was very confused which project to choose as i liked every other third project. At the time i was

quite interested in Artificial Intelligence and Deep Learning so i thought to take a project related to that topic. I choose Generative adversarial networks(GAN's) as my project that I want to work on. My mentor for this project was Sangeet Kumar Mishra (github handle @sangeet259).

### → Frameworks i worked with - >

- Pytorch - PyTorch is an open source machine learning library for Python, used for applications such as natural language processing. Written in Python, C, CUDA.
- Keras - Keras is an open source neural network library written in Python. It is capable of running on top of MXNet, Deeplearning4j, TensorFlow, Microsoft Cognitive Toolkit or Theano.

### → Committing on Github - >

- We had to work on the issues of the project and also can also implement various other types of GAN's and experiment with them. I knew about GAN's but hadn't trained a one before, so this was my first time. At first i tried to train a DCGAN on CIFAR-10 dataset, it was quite painful training a one without a GPU and along the way i also realised training a GAN is not an easy job as it was very unstable. Then i read about some tips and tricks to train a GAN in a much more better way. So i finally started working on an issue in which i had to generate new faces using GAN's, it was quite an interesting issue. I immediately downloaded some face dataset and started working on it and this was the result.



Epoch 36

I immediately sent a PR as the deadline for the first commit was approaching closer and this was my very first pull request which i had sent and got merged.

Then i started working on Wasserstein gan which was much better than a normal gan and also had a much better loss function. It took me quite a time to understand the research paper and get the intuition behind it and finally i coded it in keras and sent another PR. The mentor was very much helpful and guided me along the way incase i had any difficulties. This project helped me get know more about GIT and i learned about Pytorch along the way. It was a wonderful experience and i feel lucky going to that cafe.