Welcome to EIP4

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Below is how your phases look like. You are in Phase 1

1. Phase 1:

- 1. Background and basics of Convolutional Neural Networks
- 2. Neural Network Architectures and Receptive Field
- 3. Modern DNN Architectures, Batch Normalization and other regularization techniques
- 4. Advanced Convolutions and Data Augmentation Techniques
- 5. Super Convergence, or how to train CIFAR10 network in under 40 seconds to 94% accuracy

2. Phase 2:

- 1. Yolo V2 Architecture
- 2. Mask RCNN Architecture
- 3. Training an Object Detector from Scratch including data augmentation
- 4. Human Pose Estimation and Object Segmentation
- 5. Generative Adversarial Networks and Variational Autoencoders

3. Phase 3

- 1. RNN & LSTM
- 2. Reinforcement Learning Basics
- 3. OpenGym & Q-Learning
- 4. A3C in Depth
- 5. AlphaZero

Program Details:

- 1. Speed:
 - 1. EIP is a fast paced program.

- 2. We will do our best, but this program really would work if you ask questions and collaborate with other EIP members.
- 3. Best plan for you is to not refer any online source, and limit your focus to the concepts we would cover. We really do have a plan for you!

2. Newbies:

- 1. If you are new to Convolutions, then it is even more important that you ask questions in the class/group.
- 2. Make sure that you do your assignments on time.
- 3. DO NOT PROCRASTINATE (especially if you are doing this course online). If you are going to attempt the quiz/assignment on the last day, you are already doomed.
- 4. We will expose a new universe for you, and make sure that you are inspired after every class to learn more. Carrying back that inspiration and converting it into working code would be your tough job
- 5. Do not underestimate the importance of time. You may not realize, but 1 week is ~ 2% of the year!

3. Flexibility:

- 1. Please note that even though you have selected a batch, you are still allowed to attend any other batch in case you missed yours or want to refresh the concepts.
- 2. Please do not misuse this policy, and try and avoid attending Saturday as a backup batch, as it is already full.
- 3. You can attend Monday 6:30, Wednesday 6:30, Friday 6:30 and Saturday 12:30 (will always be full and you may not get a seat for 2 hours (instructor would also be standing by the way)
- 4. The batch which you have selected however is fixed, and time provided for your assignment (6.99 days) is fixed to your batch).

4. Quiz:

- 1. Every Session ends with an Online Quiz.
- 2. You'll have 6 days to attempt the quiz.
- 3. Quiz is open, which means you can use Google (in vain) to search for the answers.
- 4. Quiz has negative marking
- 5. Quiz is paramount in this course, and it would test you hard, so make sure you attempt it only after you have covered the concepts properly
- 6. Except in the first session, we will spend the first 40 minutes on the guiz solutions
- 7. You will be submitting the Quiz Solutions online on the LMS

5. Assignments:

- 1. Every Session ends with an assignment
- 2. You'll have 6.99 days to attempt the Assignment
- 3. Assignment is open, which means you can use Google (in vain) to search for the solutions
- 4. Assignment has negative marking (instructions would be provided, for example, -2000 points on using a Fully Connected layer, etc)

- 5. Assignment is the test of your implementation skills. You are allowed to copy code from online sources for the parts you may find useful (you'll not get full code anywhere).
- 6. Comments on the Assignments will be directly provided on the LMS
- 7. Every Assignment must be submitted with a well-formatted ReadMe File (will be explained in the class).
- 8. Once assignments are evaluated, best assignments would be shared with all for future reference
- After completing the assignment, you'll push your code to GitHub. Please make sure you know the basics of GitHub (https://www.youtube.com/watch?v=SWYqp7iY_Tc)



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- . You'll be directly pushing your code from Google Colab to GitHub
- 10. You will be submitting the Assignment LINK online on the LMS

6. Qualifier Project

- 1. As you already know, this is Phase 1. Session 5 ends with a Qualifier Project. Only if you clear Qualifier Project you'll be able to proceed to the next stage of EIP
- 2. Qualifier Projects are hard, and will really test your concepts.
- 3. Qualifier Project will take longer time to finish, and you'll have 2 weeks. Please note that you may have to spend 6-7 days on training multiple AI models, so you'd need to start early.
- 4. Qualifier Projects have hard cutoffs, and there wouldn't be any exception.
- 5. Only if you clear the cut-off you'll be getting the Phase 1 Completion Certificate.
- 6. If you clear Qualifier for the Phase 1, you'll always be eligible for any future Phase 2 of any future EIP!

7. Online vs Classroom

- 1. We feel there is no alternative to 1-on-1 interaction. But because not everyone can attend the classroom, we have created this alternative.
- 2. We tread online and classroom program as same. This means if you are joining this program online, you can still come and attend the classroom sessions, and if you are taking this program in the classroom you can (do not) attend the lecture online.
- 3. Online Programs starts some 4 hours after the Classroom Program. We do not stream the videos live as we have seen, nearly everyone views the lecture after the live session has ended. This also allows us some additional time for video editing if required. Videos would be available in 1080P format.
- 4. IF you are in Online Program, we expect you to be extra active on the Telegram Group and make sure you get all your questions answered.

8. Welcome to an awesome journey!

- 1. We have met/seen/worked-with/had-amazing-time with more than 3500 people through EIP and EVA.
- 2. We will try our best that the next month becomes on of the best learning experience you've ever had!
- 3. But please remember that our role of that of a driving instructor, and **you** will have to drive the car on your own.
- 4. We will only be focusing on the state-of-art concepts. This helps keep the course simple, short, and concise.
- 5. We have shared Phase 2 and 3 details already. There is Phase 4 as well! In the Phase 4, a select few are selected for a research program.

9. Venue and timing:

- Your classes will be held at: https://goo.gl/maps/QMChqxebGFy42FD98
 2nd Floor
- 2. Your class will start sharp on time (especially on the weekdays as you'd want to leave for your offices on time) irrespective of traffic, rain or meteorite strike. Since the class starts with discussing the quiz, if you are late, you'd lose a lot

10. Next Steps:

- 1. Please cover some of the links we have provided above on Python/GitHub/Colab
- 2. Just before your first class you'd get LMS access. Please make sure that you can login to the LMS before coming to the class. In case you are not able to login, please talk to the instructor in the class. Login Problems can only be solved in the class.
- Please make sure that you have joined our
 Telegram group: https://t.me/joinchat/KK7uig9rE2U6qb68_ytCYQ
 (https://t.me/joinchat/KK7uig9rE2U6qb68_ytCYQ)

We again welcome you and thank you for deciding to spend your next 45 days with us! We will try our best to make this an amazing journey!