## PyTorch LEVEL 2

- 1. AUTOGRAD MECHANICS
- 2. Excluding subgraphs from backward
  - requires\_grad
  - How autograd encodes the history
  - In-place operations with autograd
  - In-place correctness checks
  - Multithreaded Autograd
- 3. Concurrency on CPU
- 4. Non-determinism
- 5. Graph retaining
- 6. Thread Safety on Autograd Node
- 7. No thread safety on C++ hooks
- 8. Autograd for Complex Numbers
  - What are complex derivatives?
- 9. Wirtinger Calculus comes in picture
  - How is Wirtinger Calculus useful in optimization?
  - How does PyTorch compute the conjugate Wirtinger derivative?
  - How can I write my own derivative formula for a complex function?