Weekly Report: Oudarja Barman Tanmoy Alpha AI

Week-02 (march 24 - march 27)

1) Mathematics for Machine Learning:

   a) Course 01: Linear Algebra

   i) Week 1: Vectors, Operations with vector, The relationship between vectors, machine learning and matrices, Solving some simultaneous equation.

   ii) Week 2: Modulus and inner product, Cosine and dot product, projection, Changing basis, Linear independence concept, Application of changing basis.

   iii) Week 3: Introduction to matrices, Matrices in linear algebra: Operating on vectors, Matrix inverses.

   iv) Week 4: Matrices Changing basis, Orthogonal Matrices,

   v) Week 5: Introduction to eigen values and eigen vectors, Calculating eigen vectors, Changing into eigen basis.

2) Object Oriented Programming task:

   a) Some concept of Object Oriented Programming(python) were missing, these were fixed and collaboratively created a master file [taking several parts from each other] regarding Oop and uploaded to git hub.

3) Agile Methodology and Scrum learning task:

   a) Studied about Agile methodology and scrum on the basis of session taken (no formal deliverables)

4) Summarization of given paper:

   a) Paper "XGBoost: A Scalable Tree Boosting System" was studied and key points were taken and summarization of that corresponding paper was started.