Machine Learning

Week 1

Section 3

Linear Algebra Review

Matrices and Vectors

Matrix 4 x 2 can be denoted real R4x2

Dimension of matrix: # rows x # columns

Aij is used for indexing, indexing can start at 0,0 or 1,1 depends on the notation, checkout the subscripts to confirm.

A Vector is a n x 1 matrix

A 4-dimensional vector n = 4 can be denoted real R4

A screenshot of a social media post

Description automatically generated

A screenshot of a cell phone

Description automatically generated

Addition and Scalar Multiplication Review

A screenshot of a social media post

Description automatically generated

A screenshot of a social media post

Description automatically generated

Matrix Vector Multiplication

A screenshot of a social media post

Description automatically generated

Matrix-Matrix Multiplication

A screenshot of a social media post

Description automatically generated

Matrix Multiplication Properties

A screenshot of a social media post

Description automatically generated

Inverse and Transpose

A screenshot of a social media post

Description automatically generated