Daily Assessment format

Date: 1st July 2020

Name: Jyothis Donnu

Course: coursera

Usn: 4AL17EC037

Topic: Mathematics for machine learning

Github repository: jyothi-courses

Report

Using matrices to make transformations

→ matrix is an arrangement of numbers into rows & columns. make your first introduction with matrices & learn about their dimensions & elements. A matrix is

→ a rectangular arrangement of numbers into rows & columns. for example, matrix A has two rows & three columns.

→ the mathematical concept of a matrix refers to a set of numbers, variables of functions ordered in rows & column. such a set then can be defined as a distinct entity, the matrix, & it can be manipulated as a whole according to some basic mathematical rules.

→ matrices can be used to compactly write & work with multiple linear equations, referred to as a system of a linear equations, simultaneously matrices & matrix multiplication reveal their essential features when related to linear transformations, also known as linear maps.

→ A matrix is a collection of nos arranged into a fixed no of rows & columns. usually the numbers are real numbers. in general, matrices can contain complex numbers but we won't see those here.

Main point of the matrix

→ the matrix trilogy suggests that everyone has the individual responsibility to make their choice between the real world & an artificial world. through neo is the exemplar of free will, gate plays a large role in his adventure neo relies on the oracle, & everything she says comes true in some way

Application of matrices

→ Almost every branch of physics, including classical mech -anics, optics, electromagnetism, quantum mechanics & quantum electrodynamics, matrices are used to study physical phenomena, such as the motion of rigid bodies

→ matrices have also come to have important applications in computer graphics where they have been used to represent rotations & other transformations of images

is a 2×3 matrix. A matrix with n rows & n columns is called a square matrix of order n

→ Matrices are classified according to the number of rows & columns, & the specific elements there in. 1 row matrix

A matrix which has exactly one row is called a row matrix. the above two matrices are row matrices because each has only one row.

→ Matrices are a useful way to represent, manipulate & study linear maps b/w the finite dimensional vector spaces (if you have choosen basics).

→ the series primarily consists of a trilogy of science fiction action films beginning with the matrix (1999) & continuing with two sequels. the matrix reloaded & the matrix revolutions (both in 2003), all written & directed by the wachowskis & produced by Joel silver.

* The term matrix was introduced by the 19th century English mathematician James Sylvester, but it was his friend the mathematician Arthur Cayley who developed the algebraic aspect of matrices in two papers in the 1850s.

* In biology, matrix is the material in animal or plant structure of connective tissues as an extracellular matrix it is found in various connective tissue.

Bone cells:
Bone matrix is synthesized by a layer of osteoblasts on the bone surface. The osteoblasts are mesenchymal in origin & characterized by their abundant endoplasmic reticulum & their production of the enzyme alkaline phosphatase.

In the mitochondrion, the matrix is the space within the inner membrane. The word "matrix" stems from the fact that the space is viscous, compared to the relatively aqueous cytoplasm.