





# Digital Talent Scholarship 2022

**Math For Machine Learning - PCA** 

Lead a sprint through the Machine Learning Track



#### **Agenda**

Orthogonal



# Are your students ML-ready?



#### Recap



#### **Intro to Projection**

Introduction to projections | Matrix transformations | Linear Algebra | Khan Academy - YouTube



#### **Projection in 1D Subspace**

<u>Projections onto subspaces | Linear Algebra | Khan Academy - YouTube</u>



# 3.1.3 - Example: projection onto 1D subspaces - [PCA by Imperial College London] - YouTube



#### Introduction to the Course - YouTube



Projections (video 3): Example 1D Projection - YouTube



#### <u>Projections (video 4): N-dimensional</u> <u>projections - YouTube</u>



A projection onto a subspace is a linear transformation | Linear Algebra | Khan Academy - YouTube



Subspace projection matrix example Linear Algebra | Khan Academy - YouTube



#### Demo

#### Orthogonal



## **Q & A**



### **Thank You**