

EduVerse: Augmented Reality and Interactive Multimedia Demos

This document aims at providing a showcase of various examples of interactive multimedia and augmented reality usage in educational content. Use a mobile phone camera to scan the QR codes to start interacting with the demo content. Do you have questions or comments? Please contact Dr. Deniz Iren | deniz.iren@ou.nl

Interactive graphics and animations

*...When selecting a kernel for SVM, there are different approaches you can take. If you have prior knowledge of invariances in your data, it is suggested to choose a kernel based on this knowledge. To see an interactive example, **scan the QR code on the side...***



Interactive SVM

Interactive graphs help students understand the visualized phenomenon deeper. With embedded graphs students can immediately and effortlessly start exploring.

Code

```
##### TRAIN A KNN CLASSIFIER
from sklearn.neighbors import KNeighborsClassifier

knn_model = KNeighborsClassifier(n_neighbors=3)
knn_model.fit(X_train, y_train)
```

 [Open in Colab](#)



KNN Colab

Interactive code snippets allow students to seamlessly open a code editor, play with the code, and execute it to see the results immediately without having to install development environment on their computers or mobile devices.

Video lectures

*...k-nearest neighbors (KNN) is a non-parametric algorithm used for classification and regression. It is a simple and effective algorithm that can be used for a variety of machine learning tasks. To watch a short video lecture on KNN, **scan the QR code on the side...***



KNN Video Lecture

Standalone video lectures are great support for learners who need to receive information in a different modality to enhance their learning experience. Video lectures can be provided using links or QR codes which can be easily used by students to access the content.

Augmented reality content

*...Piston engines work by compressing a mixture of fuel and air in a cylinder, then igniting the mixture with a spark. The explosion pushes a piston down the cylinder. To see the engine design in augmented reality, **scan the QR code on the side...***



3D Engine AR

Linking AR content to traditional learning materials is an exciting way to enhance learning. AR content makes learning more interactive, fun, and effective. AR is especially useful in topics that include 3D and complex visual elements.