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In [32]: import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
from mpl_toolkits.mplot3d import Axes3D
from sklearn import decomposition
from sklearn import datasets
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In [33]: iris=datasets.load_iris()
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In [35]: from sklearn.decomposition import PCA

y = iris.target

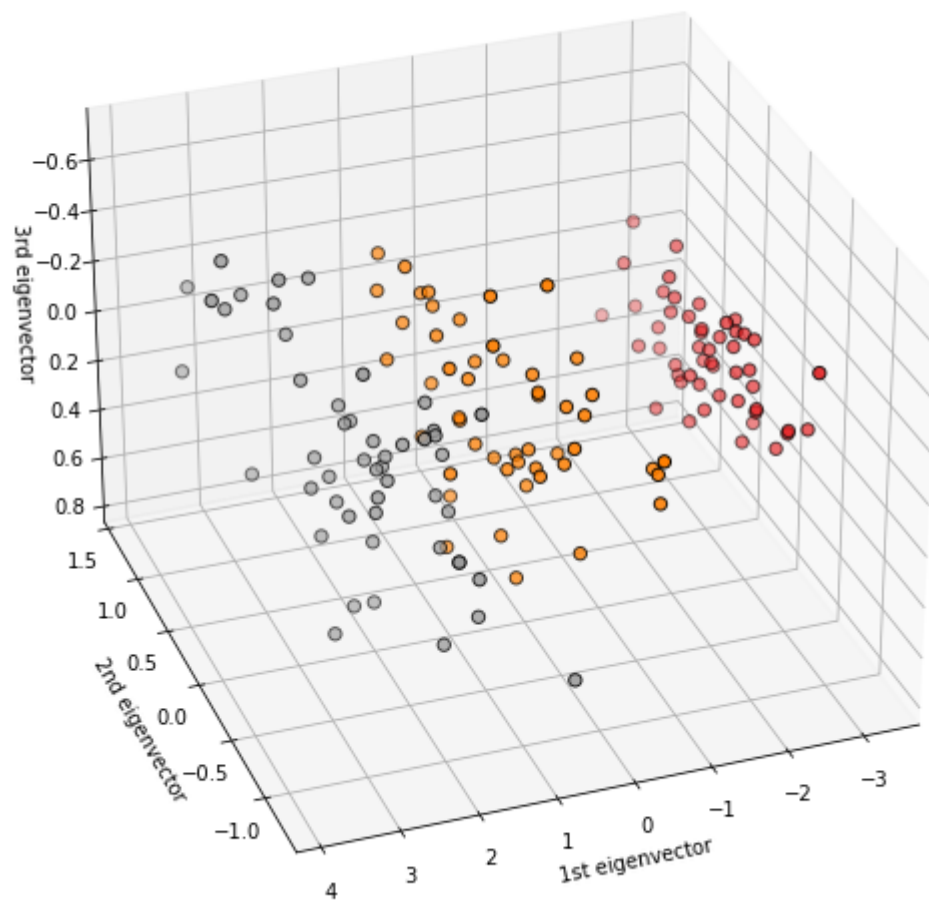
# plot the first three PCA dimensions
fig = plt.figure(1, figsize=(7, 7))
ax = Axes3D(fig, elev=-150, azim=110)
X_reduced = PCA(n_components=3).fit_transform(iris.data)
ax.scatter(X_reduced[:, 0], X_reduced[:, 1], X_reduced[:, 2], c=y,
          cmap=plt.cm.Set1, edgecolor='k', s=40)
ax.set_title("Iris data in 3D")
ax.set_xlabel("1st eigenvector")

ax.set_ylabel("2nd eigenvector")

ax.set_zlabel("3rd eigenvector")

plt.show()
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Iris data in 3D



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