# Student Performance Analysis using NumPy

## Python Code

import numpy as np  
  
# Sample 4x4 matrix (each row = student, each column = subject: Math, Science, English, History)  
student\_scores = np.array([  
 [85, 90, 78, 92],  
 [88, 76, 85, 80],  
 [90, 88, 84, 86],  
 [75, 70, 80, 78]  
])  
  
# Subjects  
subjects = ['Math', 'Science', 'English', 'History']  
  
# Calculate average score for each subject  
average\_scores = np.mean(student\_scores, axis=0)  
  
# Identify the subject with the highest average  
highest\_avg\_index = np.argmax(average\_scores)  
highest\_avg\_subject = subjects[highest\_avg\_index]  
  
# Output  
print("Student Scores Matrix:")  
print(student\_scores)  
print("\nAverage Score per Subject:")  
for subject, avg in zip(subjects, average\_scores):  
 print(f"{subject}: {avg:.2f}")  
  
print(f"\nSubject with the Highest Average Score: {highest\_avg\_subject} ({average\_scores[highest\_avg\_index]:.2f})")

## Output

Student Scores Matrix:  
[[85 90 78 92]  
 [88 76 85 80]  
 [90 88 84 86]  
 [75 70 80 78]]  
  
Average Score per Subject:  
Math: 84.50  
Science: 81.00  
English: 81.75  
History: 84.00  
  
Subject with the Highest Average Score: Math (84.50)