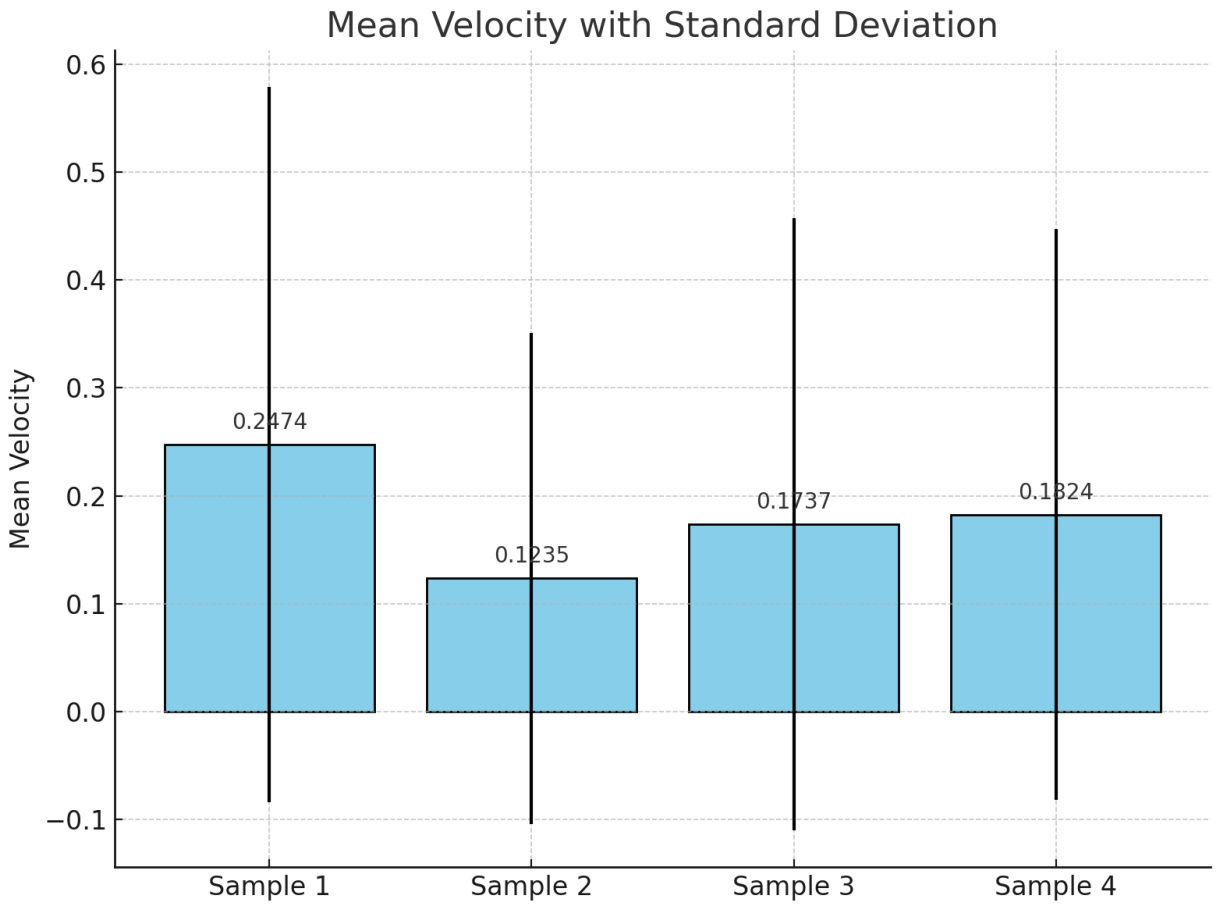
Python Program

```
import matplotlib.pyplot as plt
import numpy as np

# Sample data
means = [0.2474, 0.1235, 0.1737, 0.1824]
std_devs = [0.3314, 0.2278, 0.2836, 0.2645]
labels = ['Sample 1', 'Sample 2', 'Sample 3', 'Sample 4']

# Create bar plot with error bars
x = np.arange(len(means))
fig, ax = plt.subplots(figsize=(8, 6))
bars = ax.bar(x, means, yerr=std_devs, capsize=5, color='skyblue', edgecolor='black')

# Add text labels above each bar
for i, bar in enumerate(bars):
   height = bar.get_height()
   ax.text(bar.get_x() + bar.get_width()/2.0, height + 0.01,
         f'{means[i]:.4f}', ha='center', va='bottom', fontsize=10)

# Labeling
ax.set_ylabel('Mean Velocity')
ax.set_title('Mean Velocity with Standard Deviation')
ax.set_xticks(x)
ax.set_xticklabels(labels)
ax.grid(True, axis='y', linestyle='--', alpha=0.7)

# Save the plot
plt.tight_layout()
plt.savefig("Velocity_Bar_Plot_with_Error_Bars.png")
plt.close()
```

Output Plot


Mean Velocity with Standard Deviation
Mean Velocity
0.6
0.5
0.4
0.3
0.2
0.1
0.0
−0.1
0.2474
0.1235
0.1737
0.1824
Sample 1
Sample 2
Sample 3
Sample 4