Straight Line

In [4]:

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

In [5]:

```
x1 = np.linspace(-2,2,50)
y1 = np.linspace(-2,2,50)
z1 = np.linspace(-2,2,50)
```

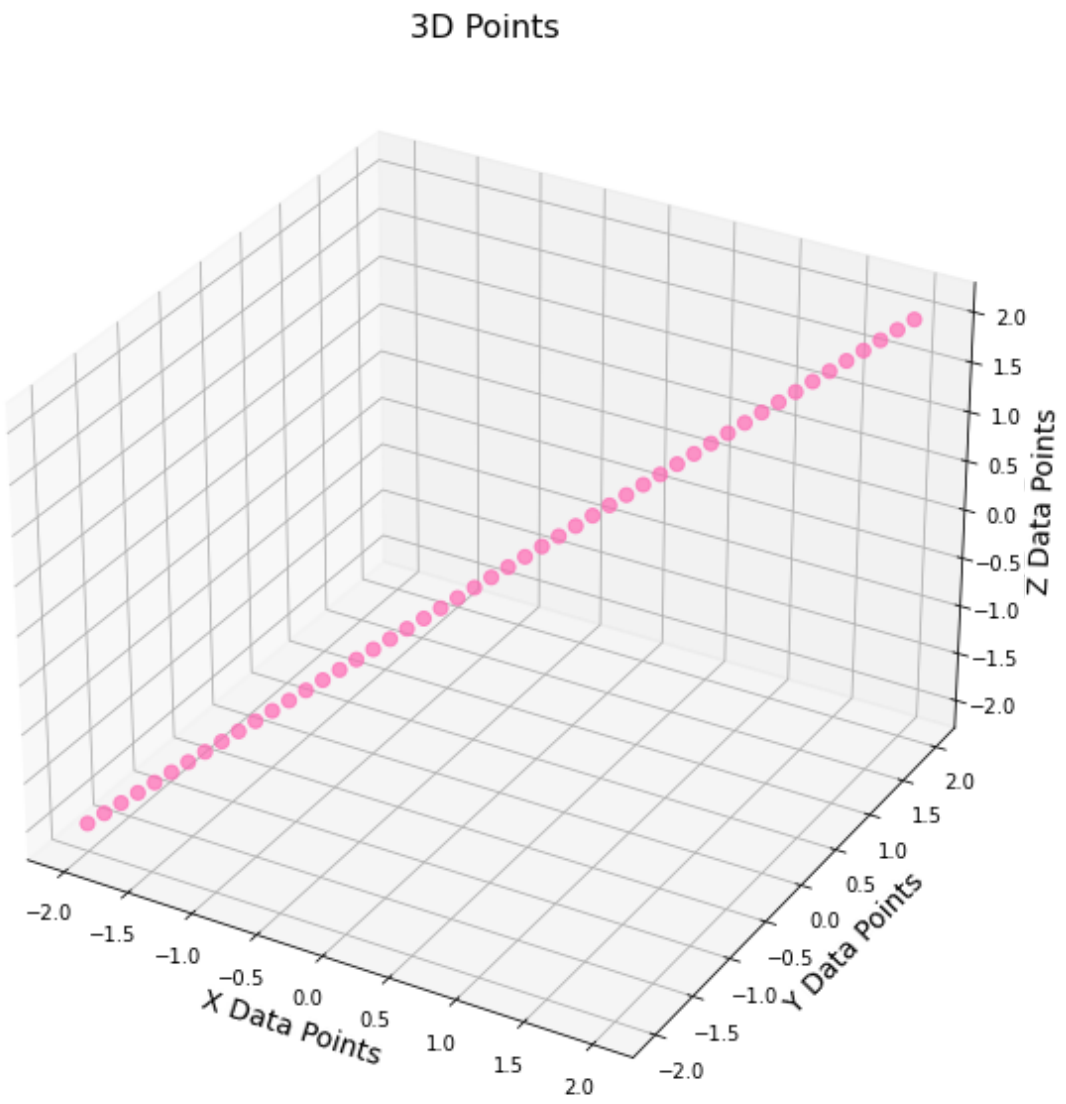
In [6]:

```
# Plotting 3D Points
plt.figure(figsize=[15,10])

ax = plt.axes(projection="3d")
ax.set_title("3D Points", fontsize=16)
ax.set_xlabel("X Data Points", fontsize=14)
ax.set_ylabel("Y Data Points", fontsize=14)
ax.set_zlabel("Z Data Points", fontsize=14)

ax.scatter3D(x1,y1,z1, color="hotpink", s=50, alpha=0.7)

plt.show()
```



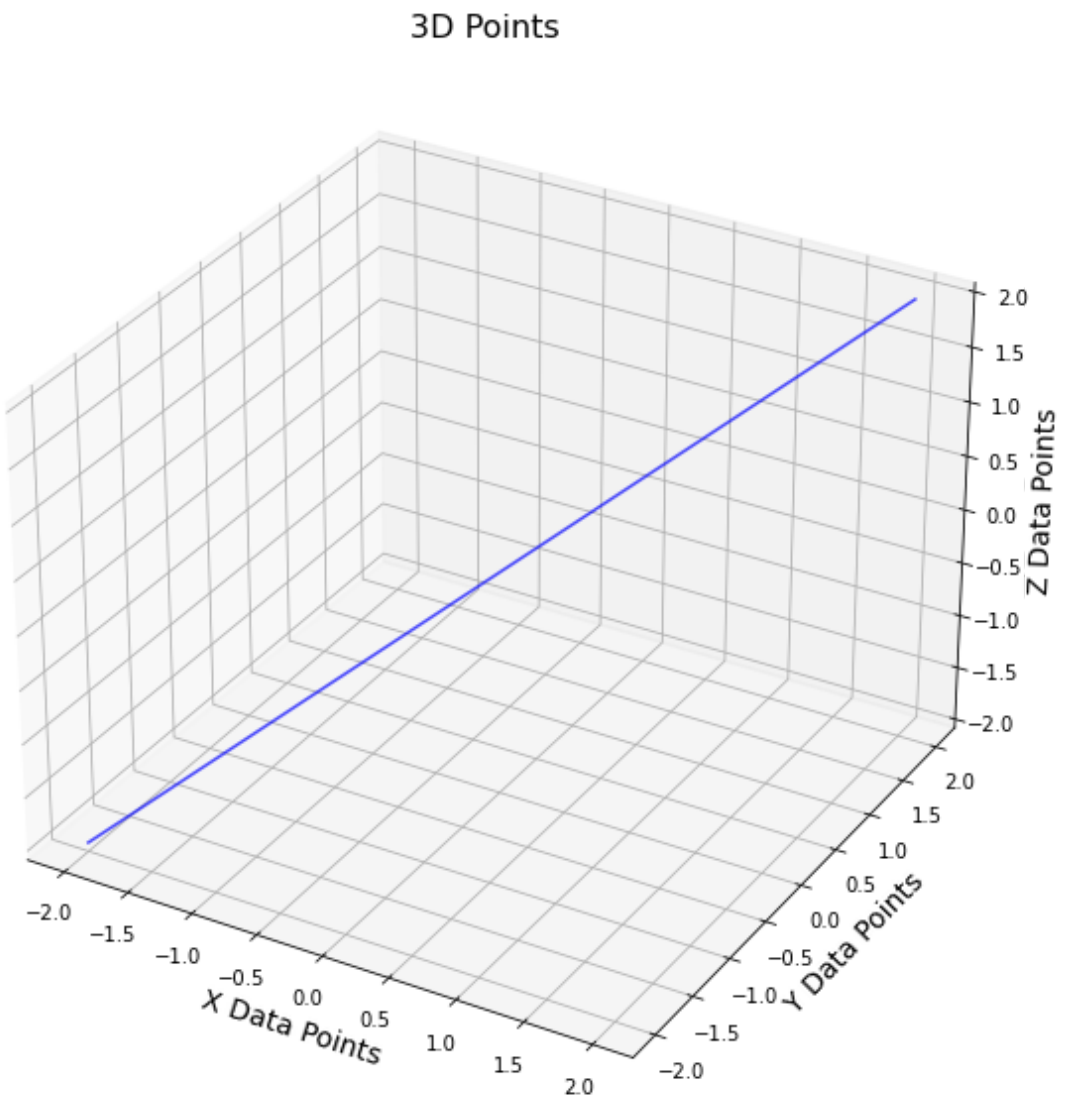
In [7]:

```
# Plotting 3D line
plt.figure(figsize=[15,10])

ax = plt.axes(projection="3d")
ax.set_title("3D Points", fontsize=16)
ax.set_xlabel("X Data Points", fontsize=14)
ax.set_ylabel("Y Data Points", fontsize=14)
ax.set_zlabel("Z Data Points", fontsize=14)

ax.plot3D(x1,y1,z1, color="blue", alpha=0.7)

plt.show()
```



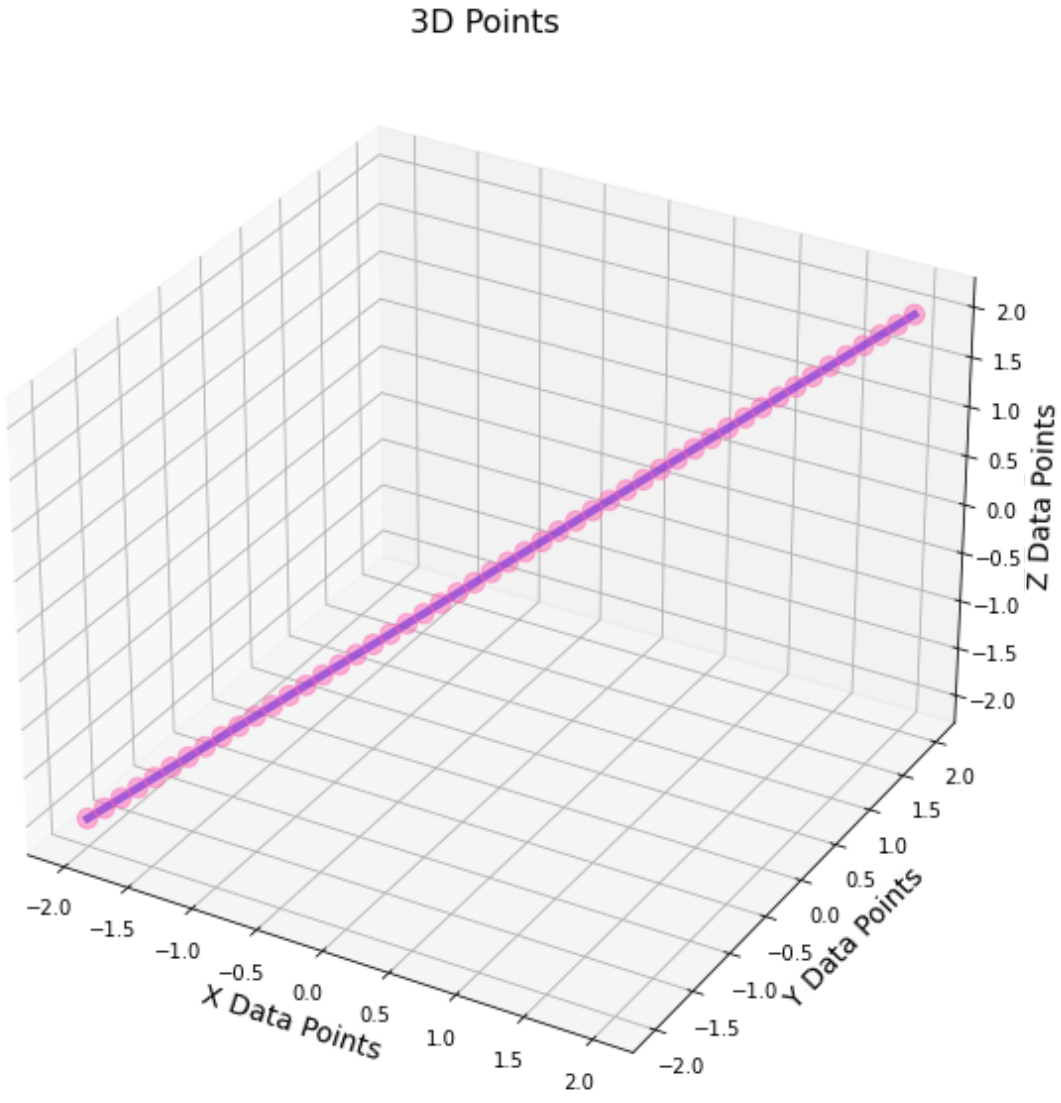
In [8]:

```
# Plotting 3D Points & Line
plt.figure(figsize=[15,10])

ax = plt.axes(projection="3d")
ax.set_title("3D Points", fontsize=16)
ax.set_xlabel("X Data Points", fontsize=14)
ax.set_ylabel("Y Data Points", fontsize=14)
ax.set_zlabel("Z Data Points", fontsize=14)

ax.scatter3D(x1,y1,z1, color="hotpink", s=100, alpha=0.5)
ax.plot3D(x1,y1,z1, color="blue", linewidth=4, alpha=0.7)

plt.show()
```



In [ ]: