Perfect — the linienkilometrierung.csv dataset has now been successfully analyzed. Here's a concise interpretation of its structure and potential use:

**✅ Summary: linienkilometrierung.csv**

| **Aspect** | **Value / Note** |
| --- | --- |
| **Rows** | 49,796 |
| **Columns** | 8 |
| **No missing values** | Dataset is fully populated (great for direct use) |
| **Coordinate precision** | Provided in both WGS84 (geo\_point\_2d) and Swiss projection (X, Y) |
| **Key fields** | KM, Linie, Kilometrierung Linie, Line |
| **Spatial objects** | Each row includes a "Point" geometry in "Geo shape" |
| **Use case** | Align train movements to precise km posts — critical for simulation mapping |

This dataset can serve as the **ground truth for mapping kilometre positions** along the SBB network. Combined with timetable and vehicle position data (e.g., from jahresformation.csv), it allows you to:

* Visualize or interpolate train positions by km
* Validate edge-km coverage in SUMO
* Cross-reference Linie with segment-based volume data from zugzahlen.csv

Would you like a visual debugging script that plots these kilometrage points over rail lines using matplotlib or folium?