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Dataset

Raw Fields

Latitude, Longitude,
Altitude, RSSI, SINR,
RSRP, RSRQ

Filter

Remove null values,
values outside normal
range

Features

Tower distance
Tower direction
SINR-Weighted RSSI

Compile

Raw Fields appended with
Features

Gaussian set

Compile

Gather Gaussian sets
where each has mean pose
and covariance

Assign Pose

Decide Gaussian position
from mean pose of points
in cluster

Compute Covariance

Perform pairwise
Euclidean distances, and
present covariance matrix
using exponential decay
function

Clustering

Group points using distance
based scheme (DBSCAN)

Transformer

Reshape Input

Gaussian set, Dataset
matrix reshaped into
Tensor

Attention

Mult-headed self attention
mechanism with
positional encoding

Feed Forward Network

Extract high-level features
using ReLU for non-
linearity

Output Layer

Convert results from
embedding space to
numerical value via linear
regression, a per sample