

Dataset

Gaussian set

Transformer

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

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)

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