



Geo-Sensorial Data Fusion Visualization

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During the project,
we designed and developed
an interactive system that visualizes
the learning process of machine
learning algorithms which we
implemented, that perform fusion of
raw geographic sensorial (probabilistic)
data and tracking of spatial entities
over time (using Kalman filter).
The results are displayed
with Google Maps

Probabilistic
estimates

Visualization
of spatial
measurements

Graphical
User
Interface

Machine
learning
algorithm

The visualization tool
plays a scenario of tracking
several entities over time
(the scenario loaded in JSON format),
and also can perform some of the algorithms.

Implemented Algorithms Pipeline

Initial Clustering

Accepting sensorial raw data
from external source,
and performing data fusion on it.

Distance Matrix

Calculating the distance of the
clusters from the existing tracks
by two movement models
- Static and Linear

M2M

Clasifying the clusters to the
most suitable tracks.

Update

Updating the tracks,
or creating new tracks
if there is no suitabillity.

