Samsung Innovation Campus

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Wildfire Forecasting

Background

- Disasters such as wildfires, earthquakes are the challenges that the society always struggling.
- Increasing number of wildfires and their damage in the world has been a problem in the past decades
- Identifying the risks over the areas would provide preparedness for good

SDG Relation

Steps

- Literature review
  - Different kind of data features
  - Different kind of ML/DL models (mostly NNs)
- Similar projects
  - Esri: https://experience.arcgis.com/experience/da5c827bd3714267b847563ca52d7320
  - Nasa: https://firms.modaps.eosdis.nasa.gov/map/

Dataset

- Wildfire data
  - Nasa: https://www.kaggle.com/datasets/brsdincer/20002020-turkey-wildfire-data-nasa
- Environmental data
  - National Centers for Environmental Information
  - Climate data source
  - National Oceanic and Atmospheric Administration

Prototype

- Powerbi dashboard
  - Map
  - Prediction on the wildfires
  - Risk classification and demonstration

Plan

- Business model/questions
- Literature Review
- Dataset collection (Due: 19.06.2022)
- Data cleaning (Due: 19.06.2022)
- Data processing/feature engineering (Start: 19.06.2022 Due: 03.07.2022)
- Model Building (Start: 03.07.2022 Due: 10.07.2022)
- Evaluation (Start: 10.07.2022 Due: 17.07.2022)
- Visualization: Power BI dashboard or others (Start: 10.07.2022 Due: 17.07.2022)