

Model Card: Linear Object Detection from Historical Map Images

Model Details

- **Model Name:** Linear Object Detection Transformer v1.0
- **Model Type:** Map Image Processing - Linear Object Detection
- **Developers:**
- **Release Date:** June 6, 2023
- **Model Version:** 1.0
- **License:** MIT License

Intended Use

- **Primary Uses:** This model is intended for use in automated waterline detection from historical USGS topographic maps.
- **Secondary Uses:** It can also be applied to other map archives, provided the desired linear object is represented by solid blue lines or solid blue lines with blue dots (the same symbol used for waterlines), and the map style closely resembles that of historical USGS topographic maps.
- **Users:** Target users include geospatial analysts, cartographers, and librarians.

Training Data

- **Download Link:** [Link](#)
- **Data Characteristics:**
 - **Size:** 7833 images
 - **Source:** USGS historical topographic maps

Evaluation Data

- **Download Link:** [Link](#)
- **Metrics:**
 - **Avg. Correctness:** 0.9890
 - **Avg. Completeness:** 0.9737
 - **Avg. APLS:** 0.6571

Version Updates

- **Future Plans:** Expand training data to include more diverse map styles.