Google Earth Engine.

↳ Data fetch. (AOI)
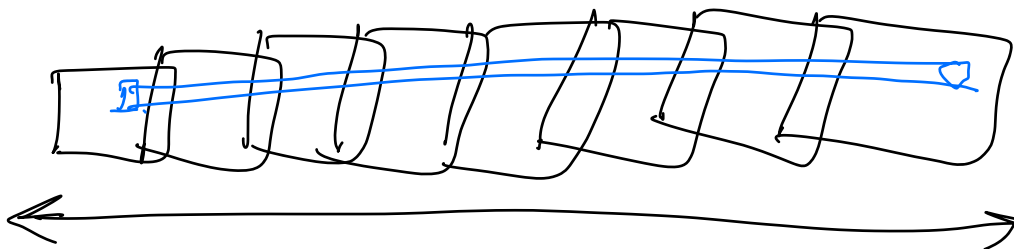
Optical.
— Landsat.
— Sentinel-2

SAR.
— Sentinel-1

Floods

Socan.
X—X

High Res. Image. ⟶ AOI.
↓
Lat/Long.

Lat lay   Lat lon
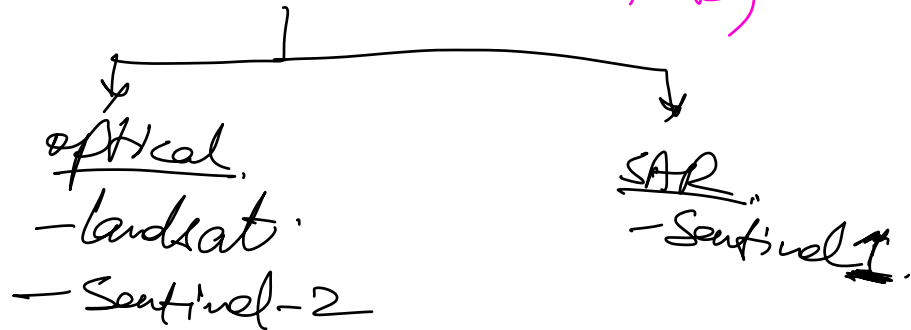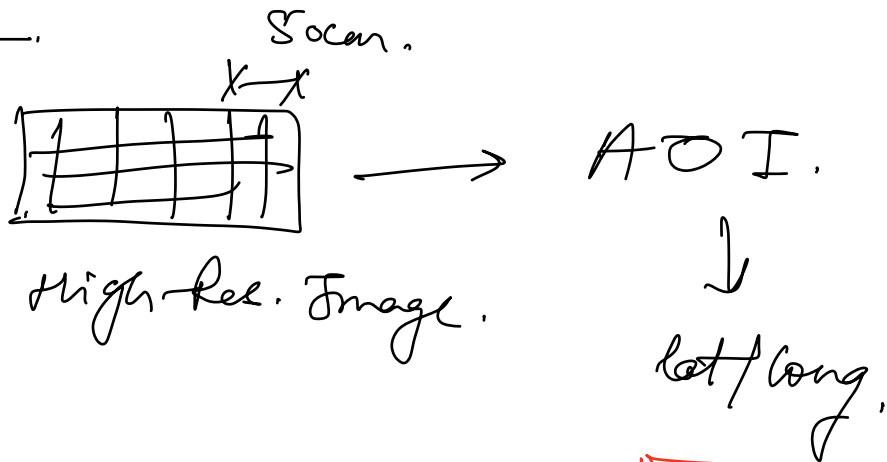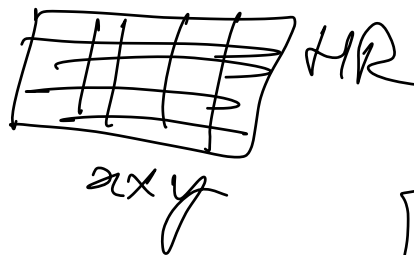
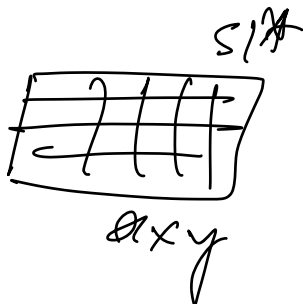## Sentinel-1

SAR.

↓ computer vision.

openCV.

↓ morphology (filter)

$\boxed{S1} \longrightarrow CV \longrightarrow \boxed{S1}$ *
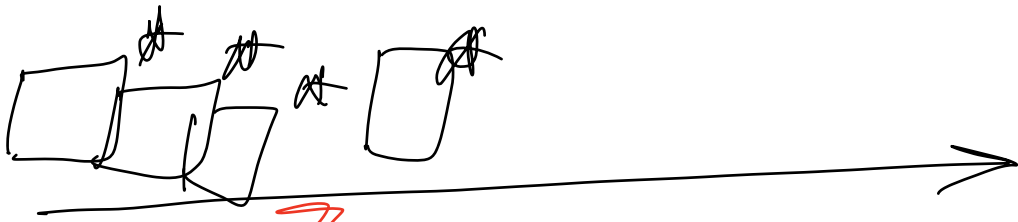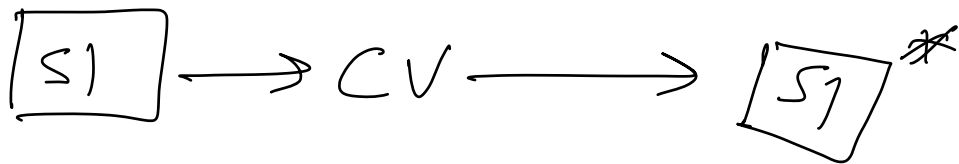
↓
A.I.

Input data — Method — output data.
(labels)

S1* time series   High-res.

labels:
Flood
No-flood

$\boxed{GIS}$

S1*   Gbnd

HR

2xy   2xy

10^{-1} ☐ en.

10^{-6}
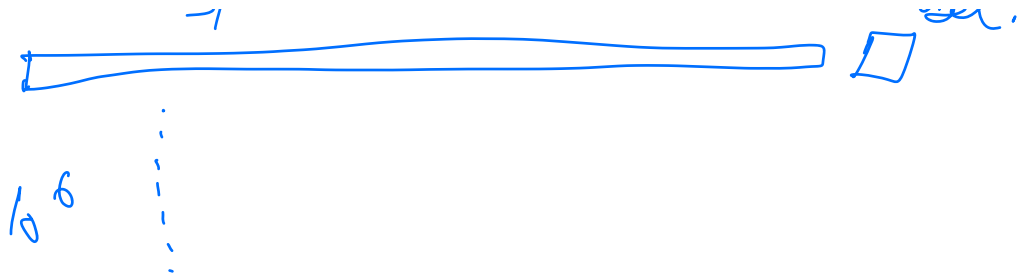
Training   Testing   Val.

LSTM → Keras (TP)

————————— X —————————

Accuracy Assessment: Confusion Matrix

F1-Score.

Hyper parameter

Introduction — 6 pages. → floods.
                        → GEE.
                        → CNN
                        → AI

Data & Methods — GEE, HR.
                    Morph., LSTM.

Results — Model. (Tensorboard)

- Accuracy.
- Hyperparameter Tuning.

Conclusions