基於合成孔徑雷達與多源數據應用之歷史洪水範圍重建:
利用ML4Flood進行洪水範圍預測

指導教授：汪立本 教授

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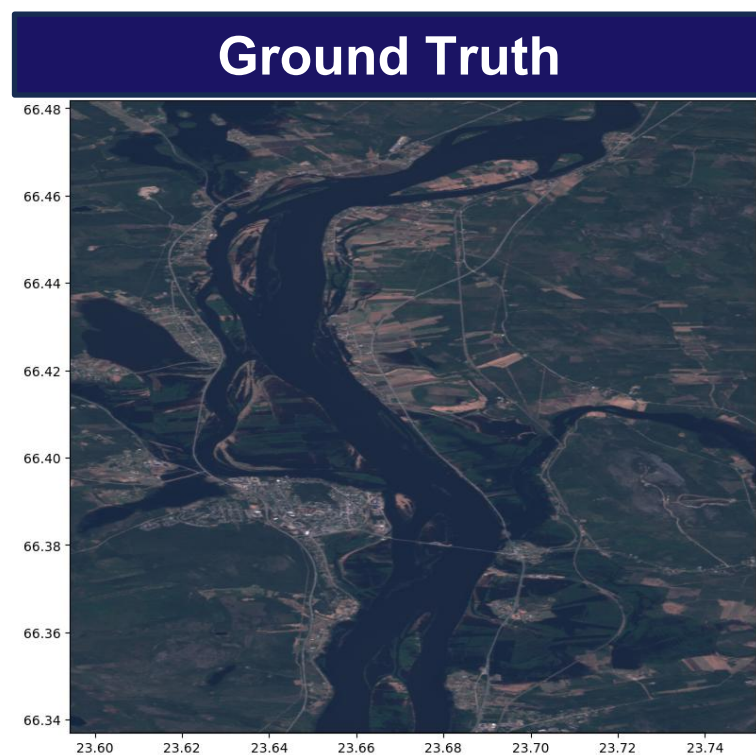
學生：游常心

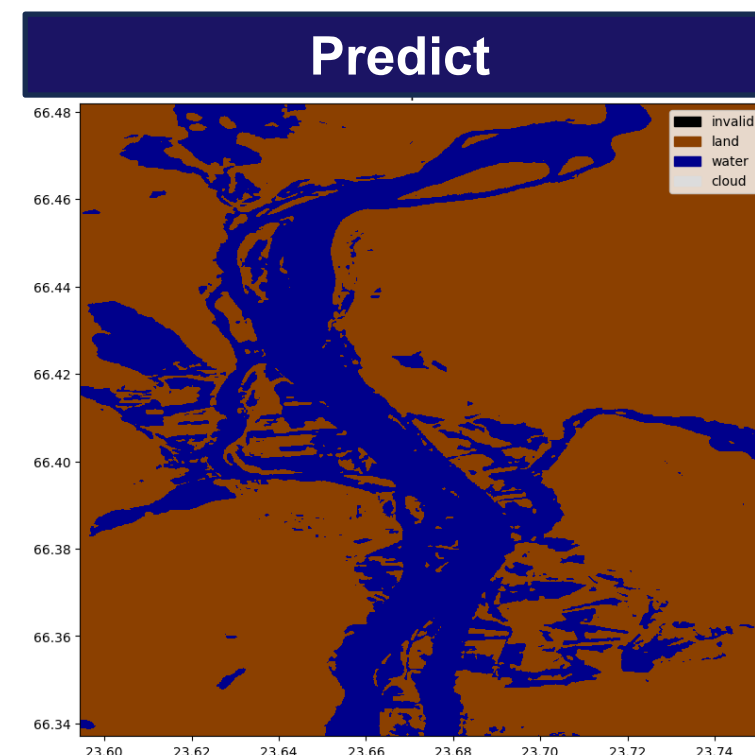單位：國立台灣大學

國立臺灣大學
National Taiwan University

問題：

洪水範圍資料難以建置

[1] E. Portalés-Julià, G. Mateo-García, C. Purcell, and L. Gómez-Chova, "Global flood extent segmentation in optical satellite images," Sci. Rep., vol. 13, no. 1, Nov. 2023, doi: 10.1038/s41598-023-47595-7.
[2] F. Fakhri and I. Gkanatsios, "Quantitative evaluation of flood extent detection using attention U-Net case studies from Eastern South Wales Australia in March 2021 and July 2022," Sci. Rep., vol. 15, no. 1, p. 12377, Apr. 2025, doi: 10.1038/s41598-025-92734-x.

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方法：

- **ML4Flood提供開源框架**
- **視覺化**

[1] E. Portalés-Julià, G. Mateo-García, C. Purcell, and L. Gómez-Chova, "Global flood extent segmentation in optical satellite images," Sci. Rep., vol. 13, no. 1, Nov. 2023, doi: 10.1038/s41598-023-47595-7.
[2] F. Fakhri and I. Gkanatsios, "Quantitative evaluation of flood extent detection using attention U-Net case studies from Eastern South Wales Australia in March 2021 and July 2022," Sci. Rep., vol. 15, no. 1, p. 12377, Apr. 2025, doi: 10.1038/s41598-025-92734-x.