The document title

Michael L. Mann* Lisa Colson† Rory Nealon‡

Abstract

This is the abstract of the document. It contains a brief summary of the content and objectives of the document. It consists of two paragraphs.

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*The George Washington University, Washington DC 20052, Corresponding author. Email mmann1123@gmail.com

†USDA Foreign Agricultural Service, Washington DC 20250

‡USAID GeoCenter, Washington DC 20523

Introduction

Background and Context

The free access to remotely sensed data, such as imagery from satellites (e.g. Sentinel-2, LandSat) has revolutionized the field of crop type classification in developing countries. By leveraging the power of advanced imaging technologies combined with machine learning algorithms, researchers and practitioners can now identify and map different crop types over large geographic areas at low cost. This has the potential to improve food security, land use planning, and agricultural policy in regions where ground-based data collection is limited or non-existent.

The collection of field observations and ground truth data is a critical input to the development of machine learning models for crop type classification. However, obtaining accurate and timely ground truth data can be challenging in developing countries due to limited resources, infrastructure, and capacity. In many cases, researchers rely on crowdsourced data from volunteers or citizen scientists to supplement or validate ground truth data collected through traditional methods. Projects like (Tseng et al. 2021) point to the near complete lack of multi-class crop type datasets globally. This is a significant gap in the field of crop type classification, as the availability of high-quality training data is essential for the development of accurate and reliable machine learning models.

Citation

See this important work for more information (Smith 2020).

Mathematics

Here is an example of a mathematical formula in LaTeX:

$$e^{i\pi} + 1 = 0$$

Conclusion

This document is a simple demonstration of MyST Markdown capabilities.

References

Smith, John. 2020. “Understanding Widgets.” *Journal of Widget Research* 10 (1): 15–30. https://doi.org/10.1016/j.jwr.2020.01.003.

Tseng, Gabriel, Ivan Zvonkov, Catherine Lilian Nakalembe, and Hannah Kerner. 2021. “CropHarvest: A Global Dataset for Crop-Type Classification.” In *Thirty-Fifth Conference on Neural Information Processing Systems Datasets and Benchmarks Track (Round 2)*. https://openreview.net/forum?id=JtjzUXPEaCu.