

## DL REVIEW 1

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### POTATO DISEASE CLASSIFICATION

#### ABSTRACT:

- Farmers every year face economic loss and crop waste due to various diseases in potato plants.
- We will use image classification using CNN and built a mobile app using which a farmer can take a picture and app will tell you if the plant has a disease or not. Technology stack for this project will be,
- **Model Building:** tensorflow, CNN, data augmentation, tf dataset
- **Backend Server and ML Ops:** tf serving, FastAPI
- **Model Optimization:** Quantization, Tensorflow lite
- **Frontend:** React JS, React Native
- **Deployment:** GCP (Google cloud platform, GCF (Google cloud functions))

#### Steps:

- Data collection
- Model building
- ML Ops
- Deployment(GCP)

**Dataset:**

- <https://www.kaggle.com/datasets/arjuntejaswi/plant-village>
- Firstly, we should load data into tf.Dataset
- Then we should do data visualization
- We should do Train test split
- We must do data augmentation