

Berlin Strikeys

HIDA-Hackathon 2024

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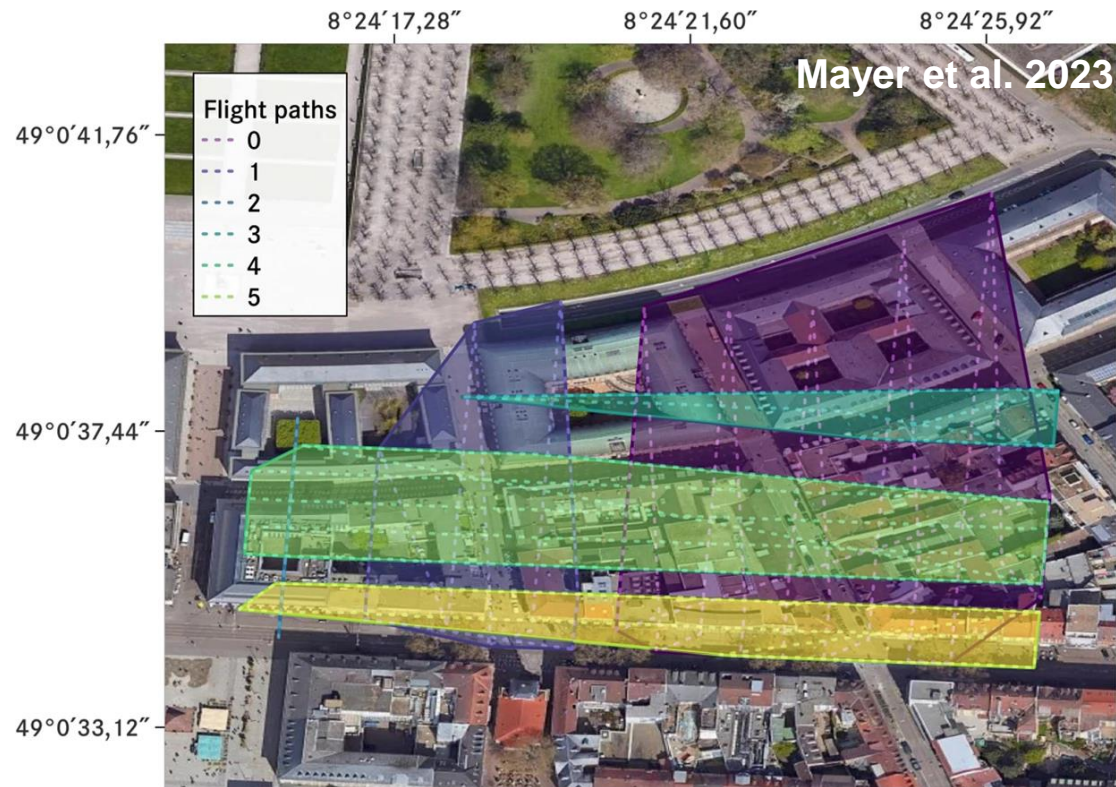
Daniel León-Periñán



Preview

Data split and augmentation

Datasplit:

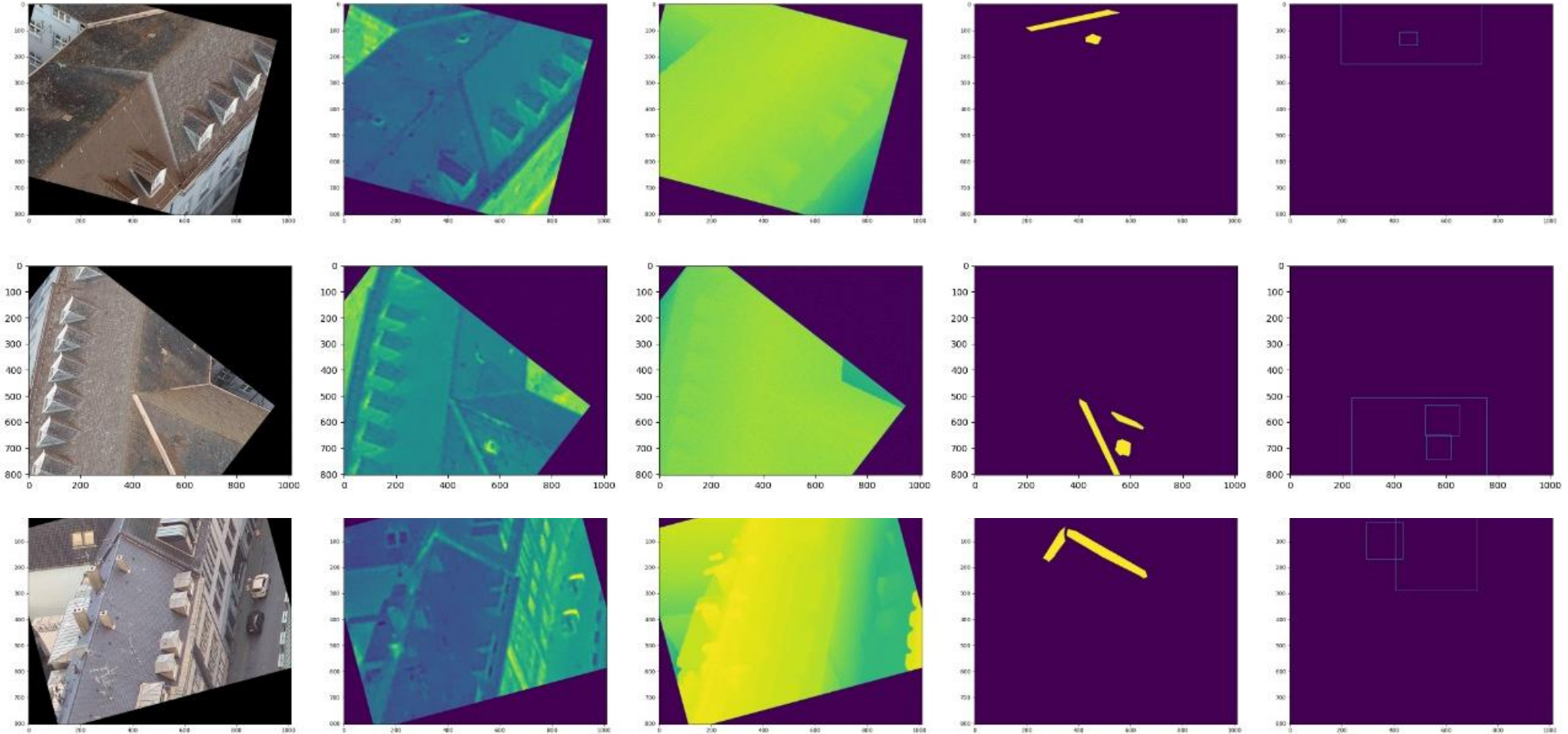


Train: 2 and 4
Validation: 3

Data-processing:

- Resizing
- RGB to Grayscale
- Random Crop (→ torchvision fix)
- Horizontal Flip
- Vertical Flip
- Coarse Dropouts
- Shift – Scale – Rotate
- Blur
- Brightness – Contrast
- Gaussian Noise

Data split and augmentation



Models

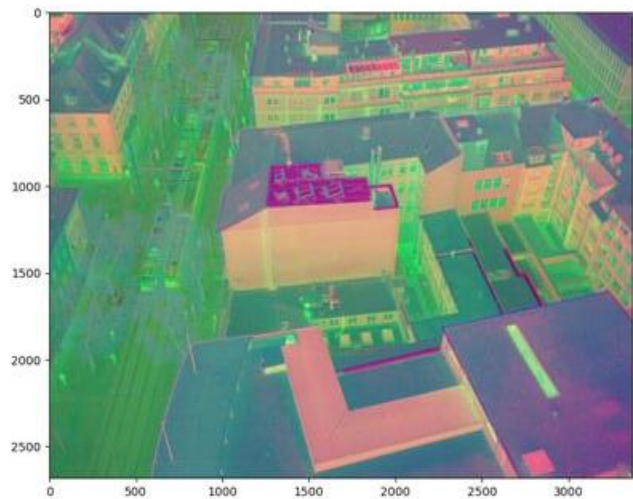
- **Gradient accumulation / large batches**
- **Mask – RCNN**
- **ResNet50 Backbone (Imagenet)**
- **Gradient quantization (16 bit)**

- **Other experiments:**
 - SAM – finetuning
 - U-NETS + RESNET/MobileNet/ efficientNet (pretrained on Imagenet)
 - FPN + RESNET/MobileNet/ efficientNet FPN+ MobileNet (pretrained on Imagenet)
 - Mask – RCNN – 5 channels

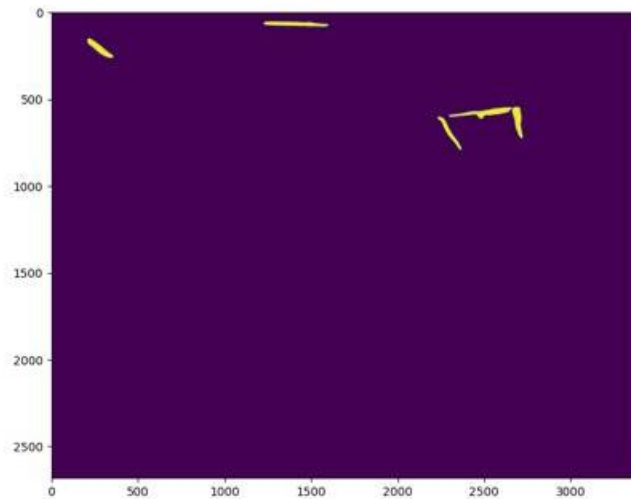
Results

**Overall score on Test:
IoU = 0.25**

Grayscale + Thermal + Height



Prediction



Label

