

MRZ Field Segmentation

Inference Results on Test Set

Model: Hough Encoder (HEDMRZ)

Best model checkpoint | val_mIoU_seg: 0.3831

Samples: 100

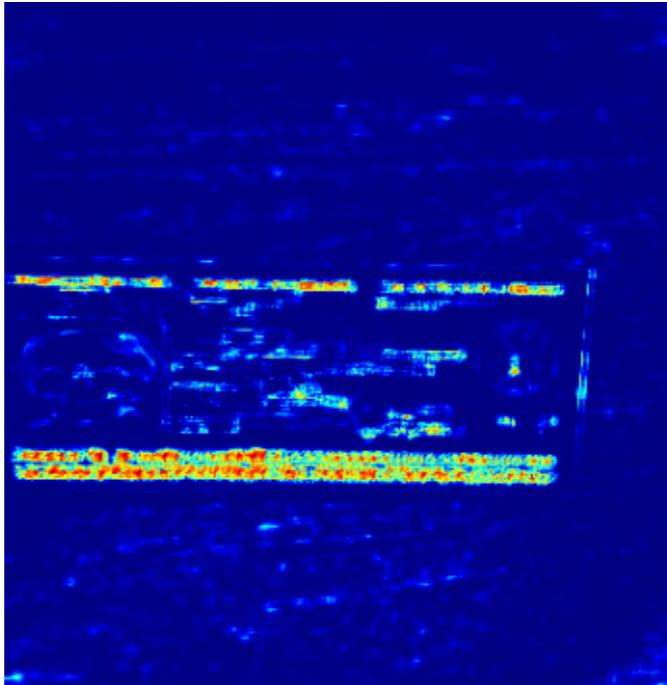
Mean IoU: 0.4150 ± 0.1942

Median IoU: 0.4608

Original
srb_passport (clips)



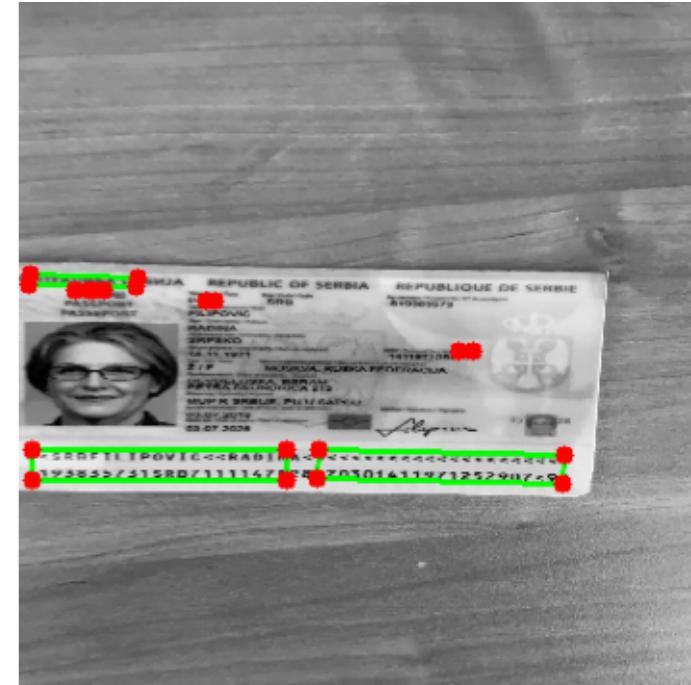
Probability Heatmap



Mask Overlay



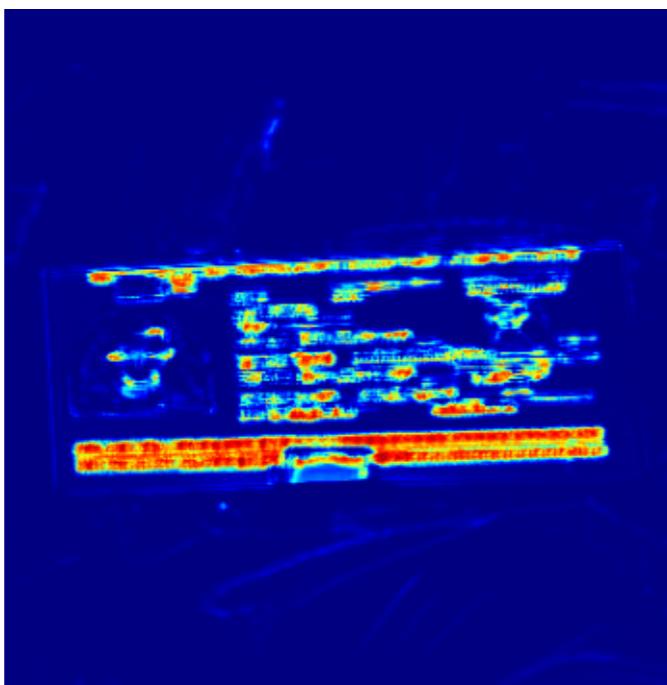
OBB Detection
IoU: 0.490



Original
34_mda_passport (unknown)



Probability Heatmap



Mask Overlay



OBB Detection
IoU: 0.229



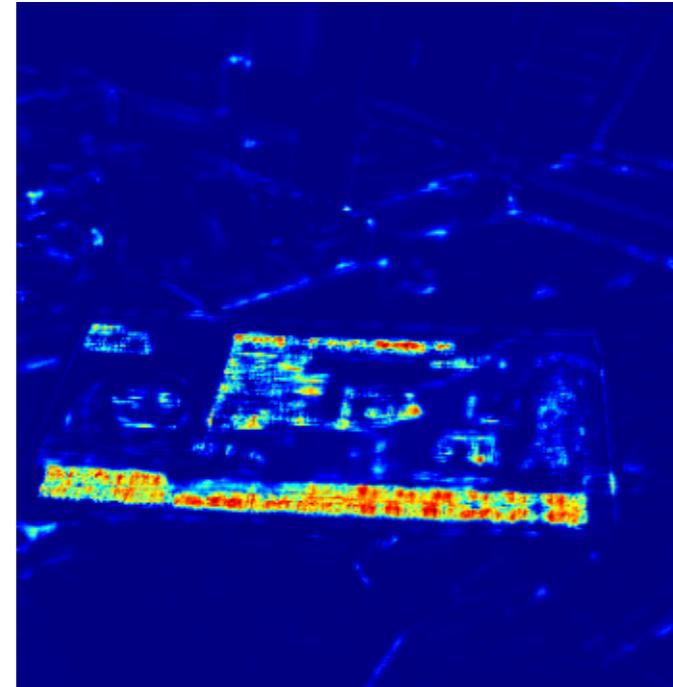
Original
lva_passport (clips)



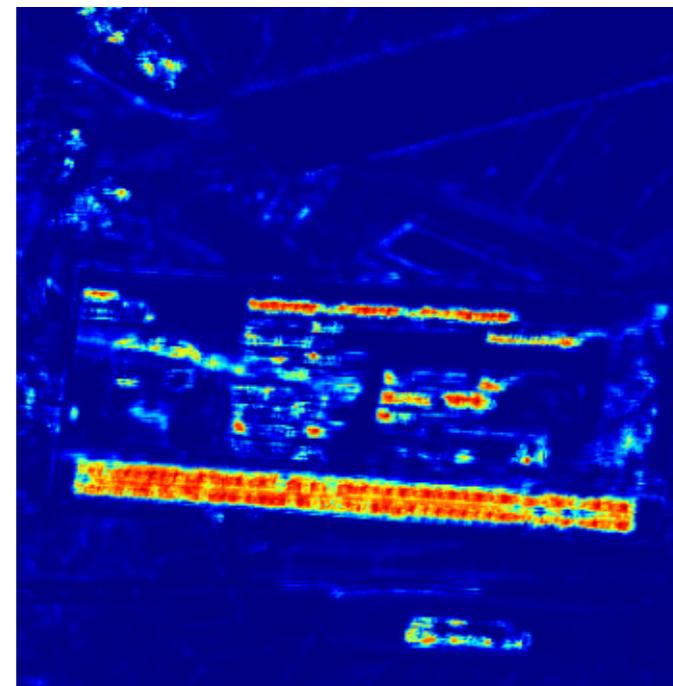
Original
32_lva_passport (unknown)



Probability Heatmap



Probability Heatmap



Mask Overlay



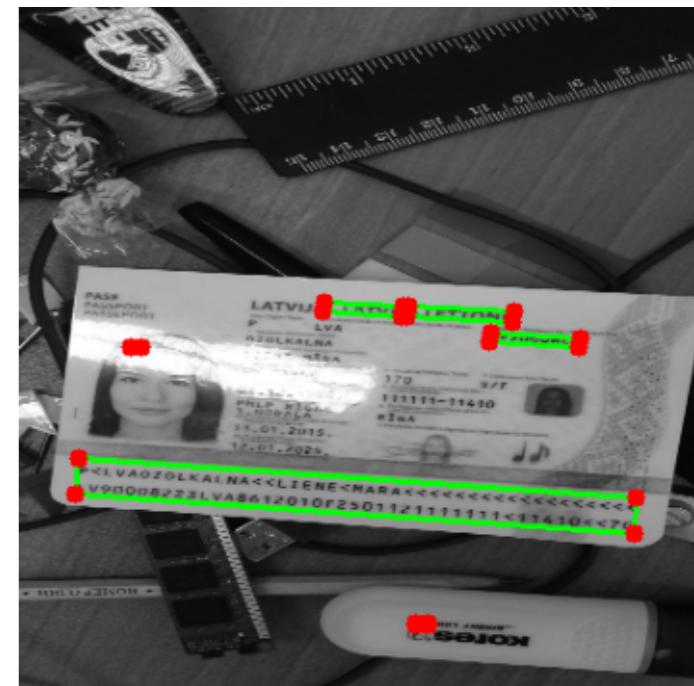
Mask Overlay



OBB Detection
IoU: 0.531



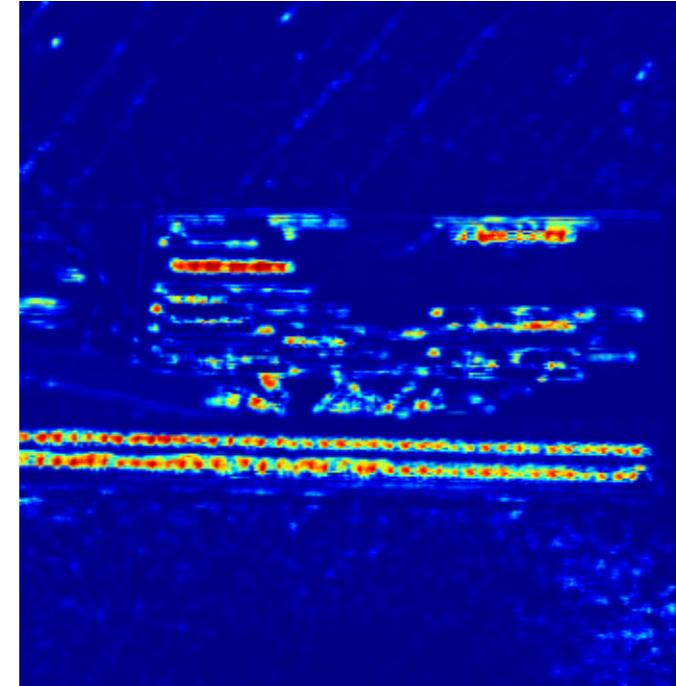
OBB Detection
IoU: 0.587



Original
17_deu_passport_old (unknown)



Probability Heatmap



Mask Overlay



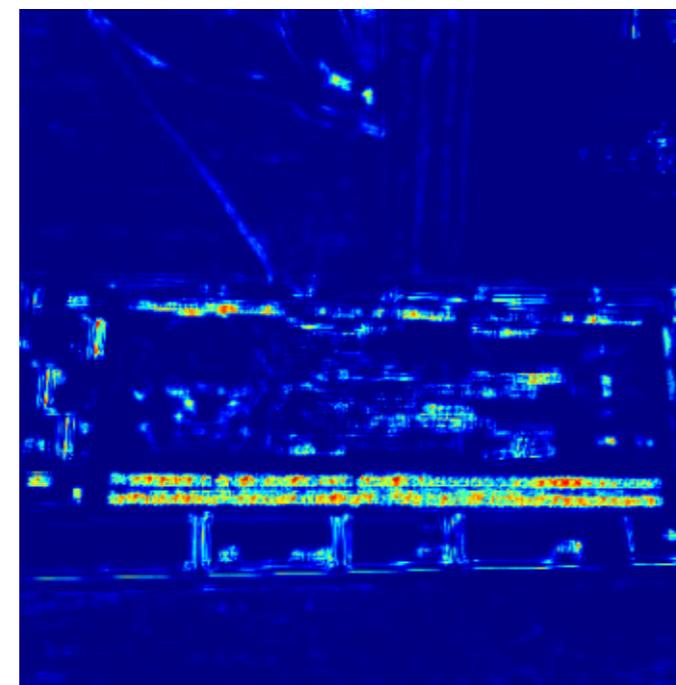
OBB Detection
IoU: 0.322



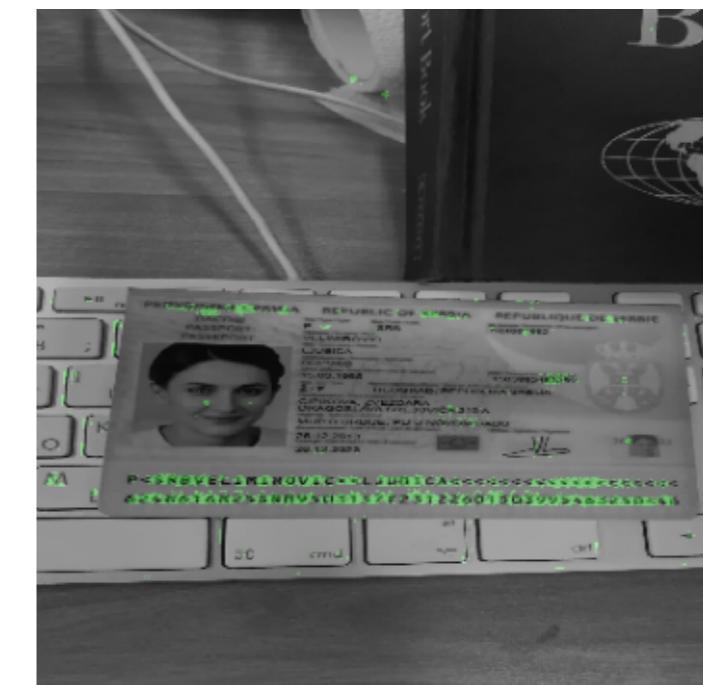
OBB Detection
IoU: 0.372



Probability Heatmap



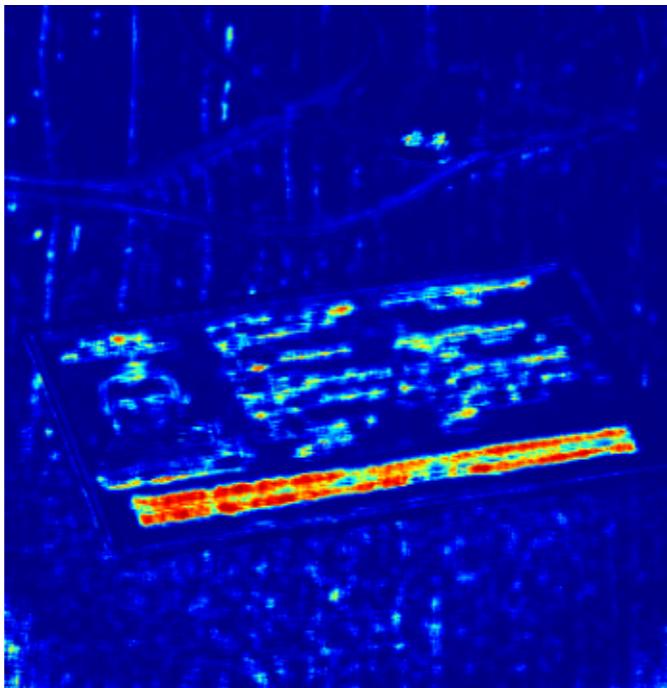
Mask Overlay



Original
18_dza_passport (unknown)



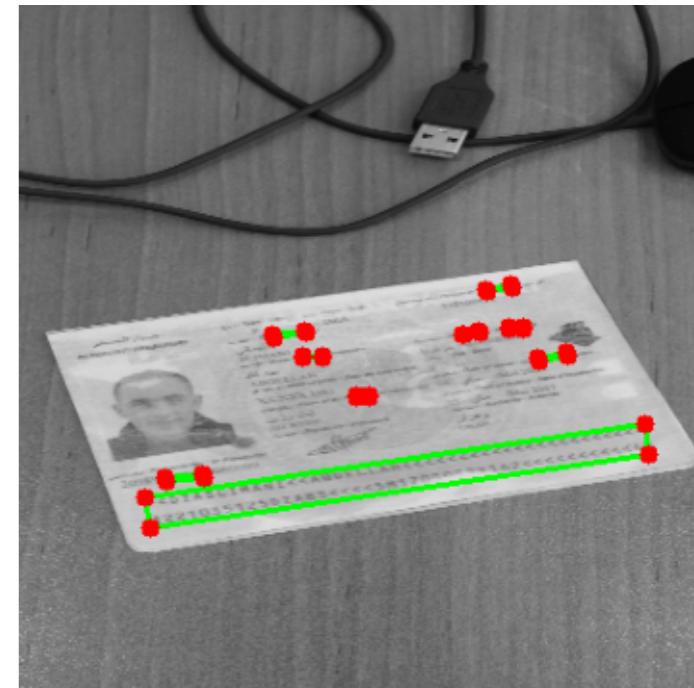
Probability Heatmap



Mask Overlay



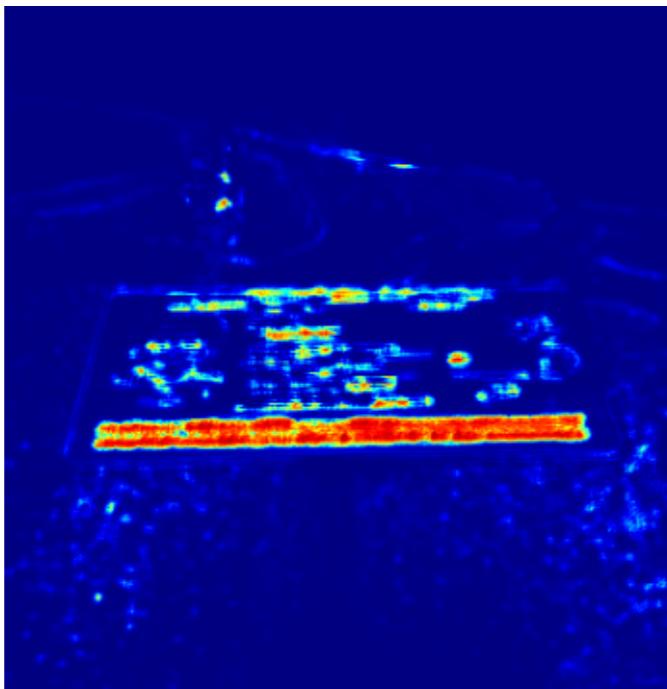
OBB Detection
IoU: 0.636



Original
aze_passport (clips)



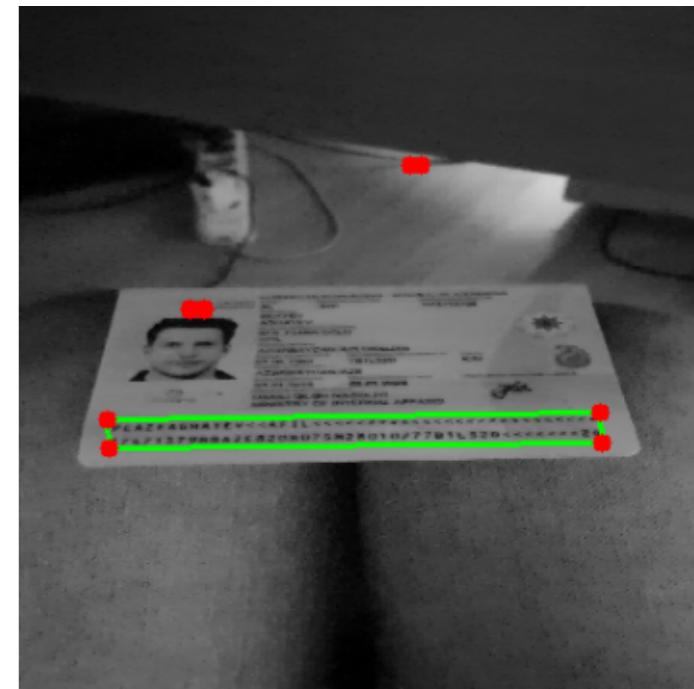
Probability Heatmap



Mask Overlay



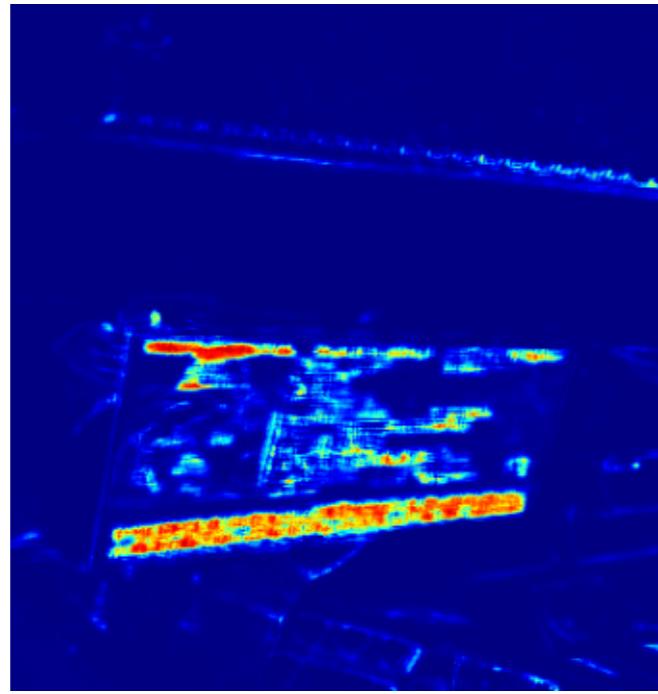
OBB Detection
IoU: 0.611



Original
srb_passport (clips)



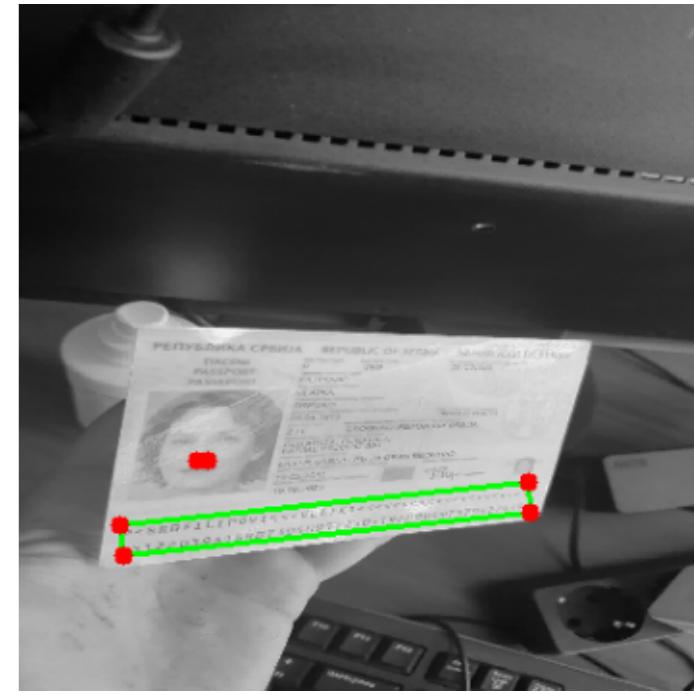
Probability Heatmap



Mask Overlay



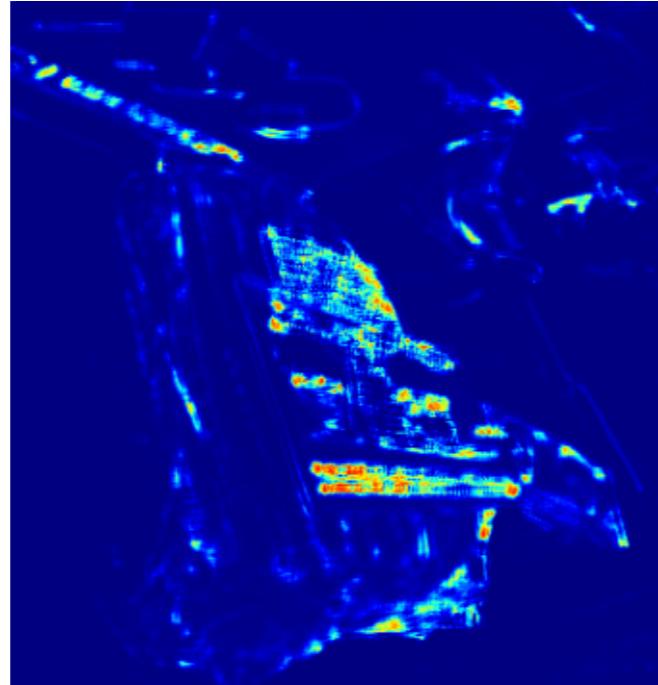
OBB Detection
IoU: 0.566



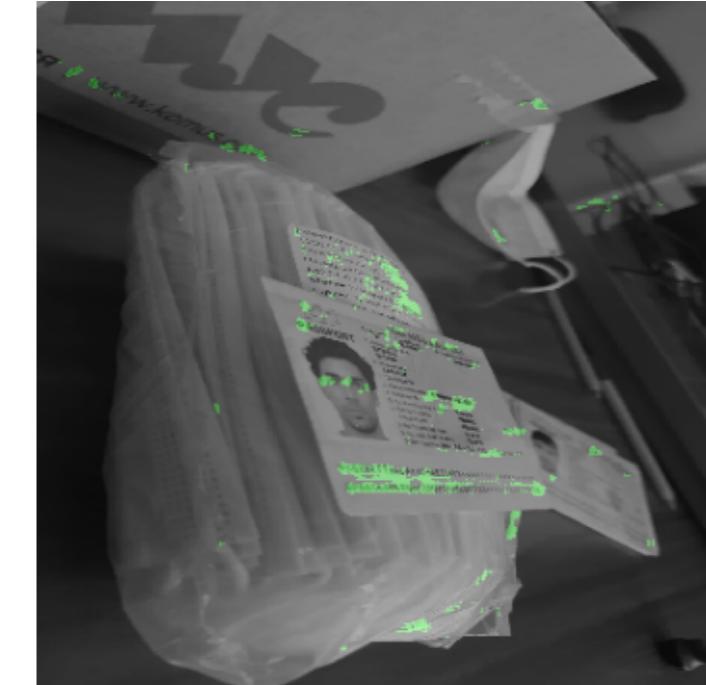
Original
grc_passport (clips)



Probability Heatmap



Mask Overlay



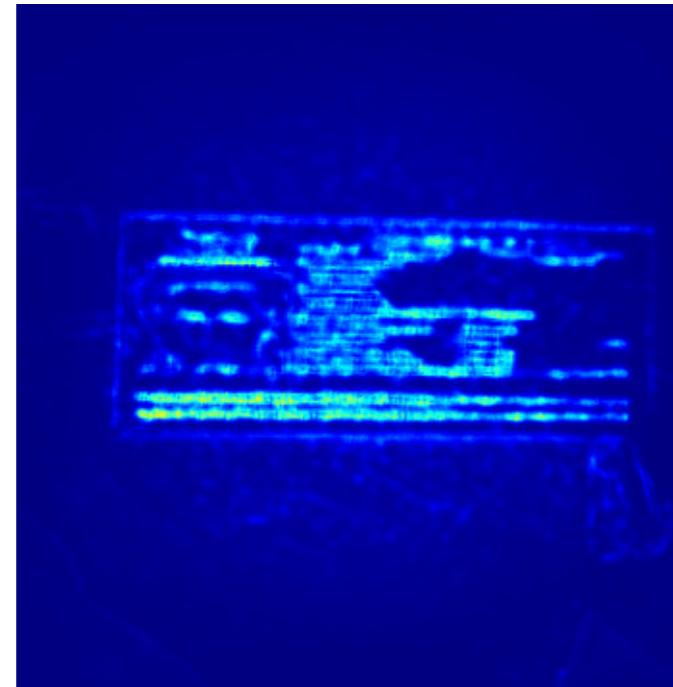
OBB Detection
IoU: 0.223



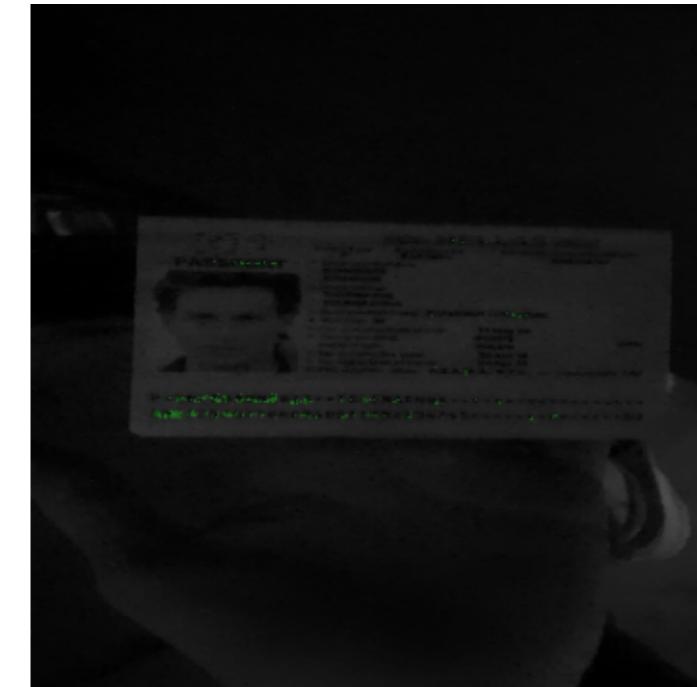
Original
grc_passport (clips)



Probability Heatmap



Mask Overlay



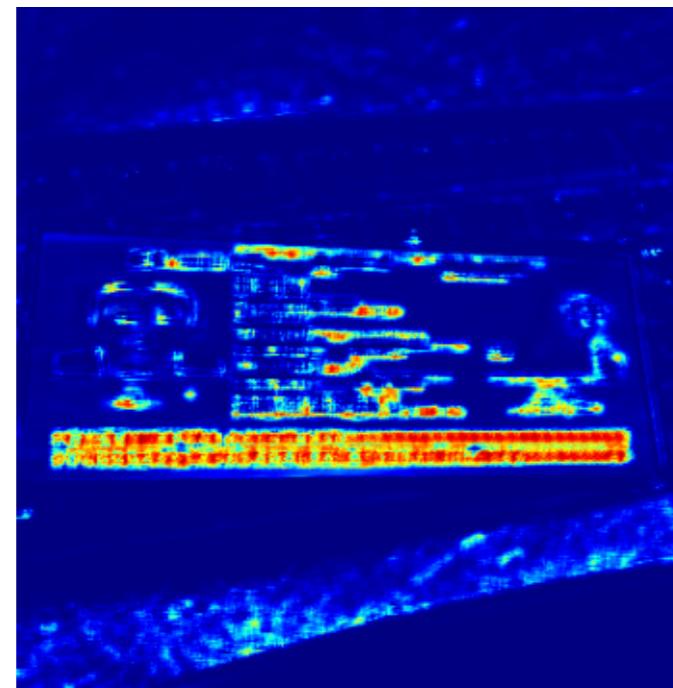
OBB Detection
IoU: 0.067



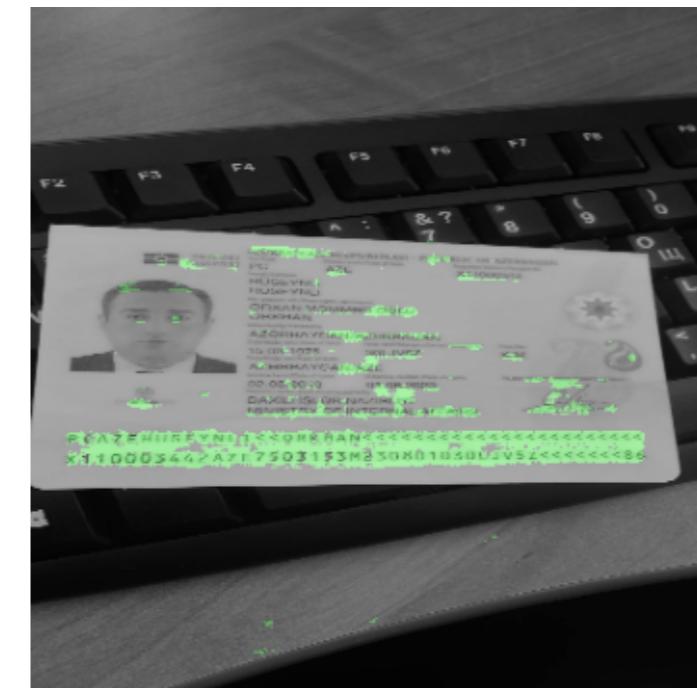
Original
05_aze_passport (unknown)



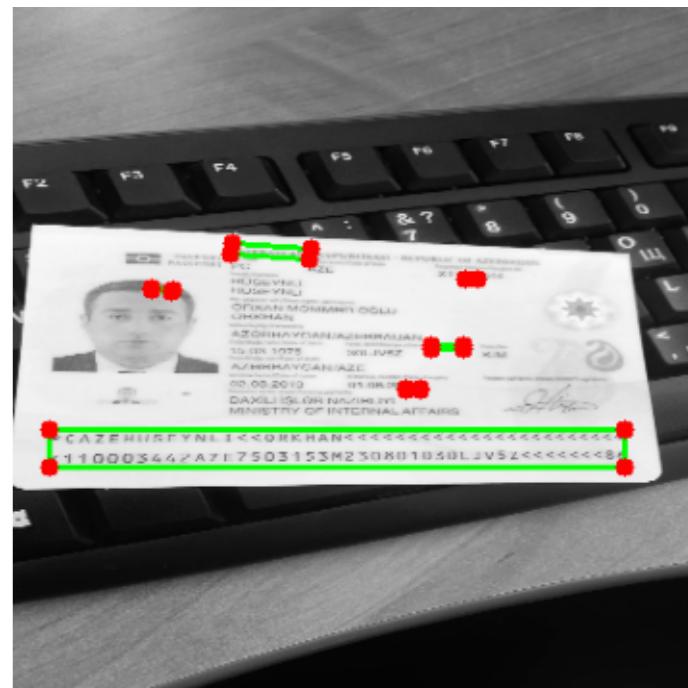
Probability Heatmap



Mask Overlay



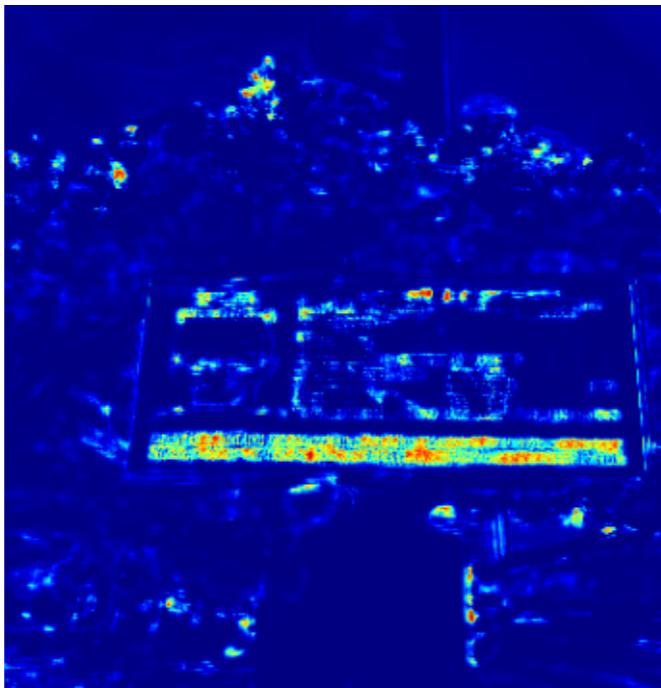
OBB Detection
IoU: 0.617



Original
grc_passport (clips)



Probability Heatmap



Mask Overlay



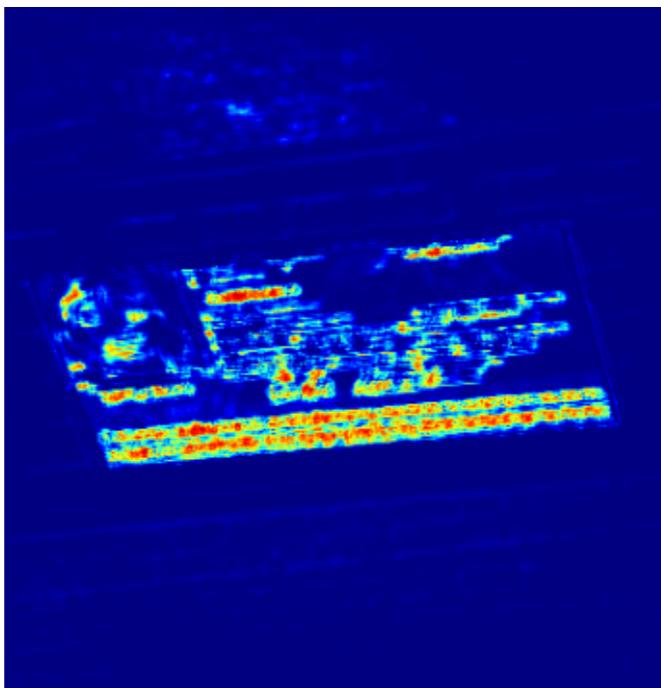
OBB Detection
IoU: 0.408



Original
17_deu_passport_old (unknown)



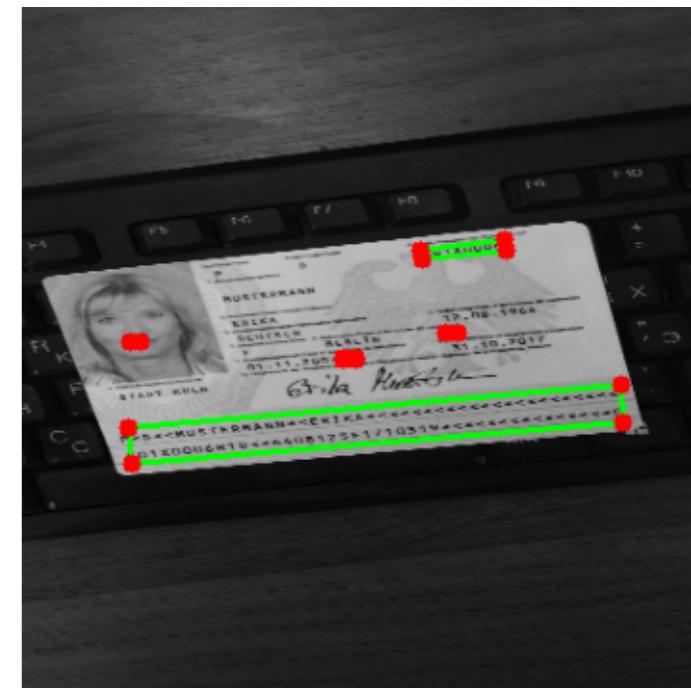
Probability Heatmap



Mask Overlay



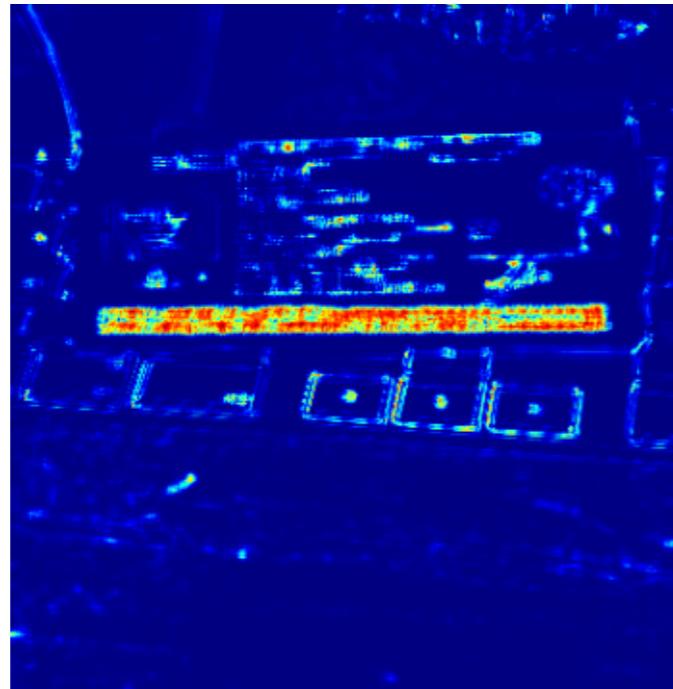
OBB Detection
IoU: 0.408



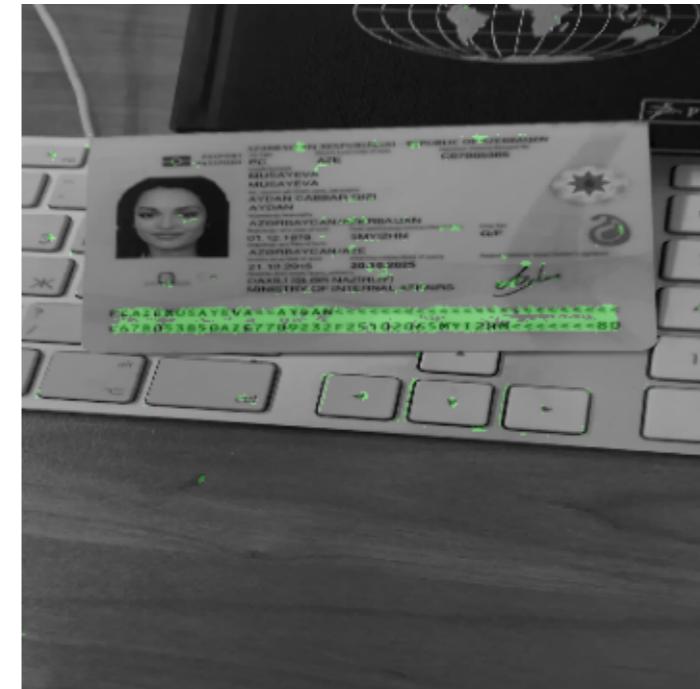
Original
aze_passport (clips)



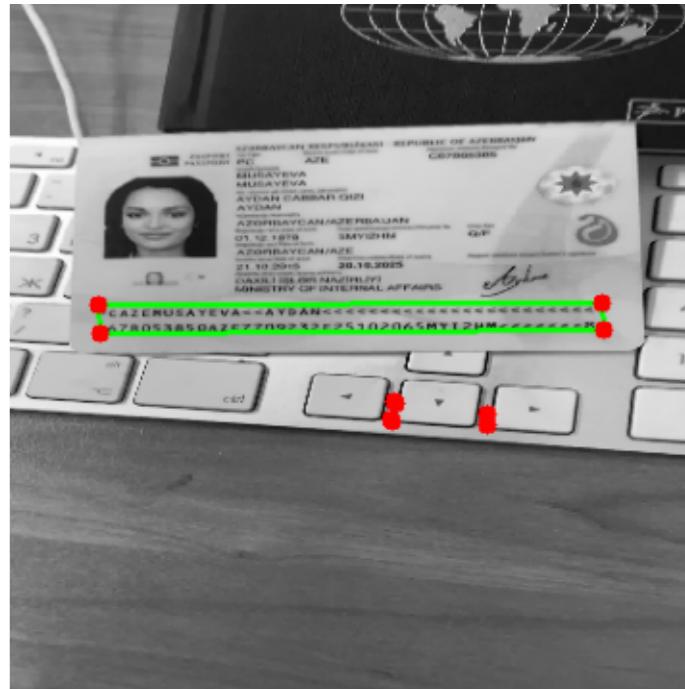
Probability Heatmap



Mask Overlay



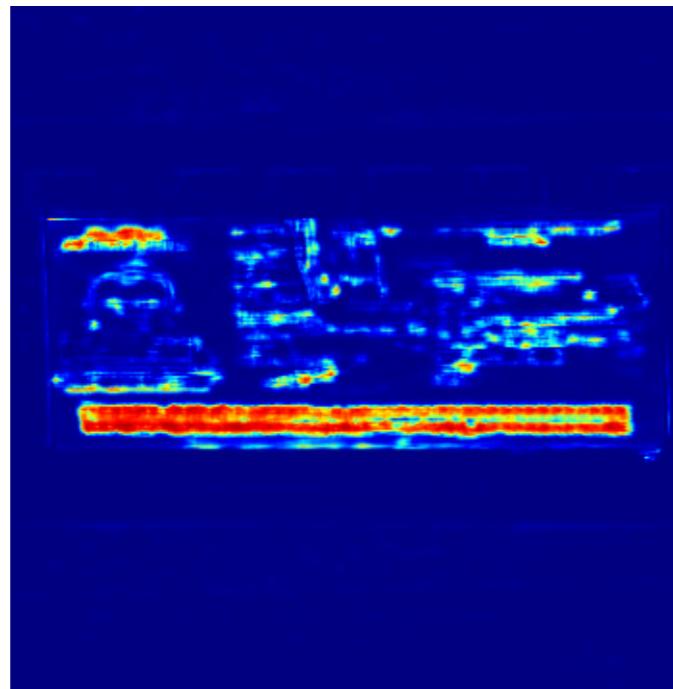
OBB Detection
IoU: 0.675



Original
18_dza_passport (unknown)



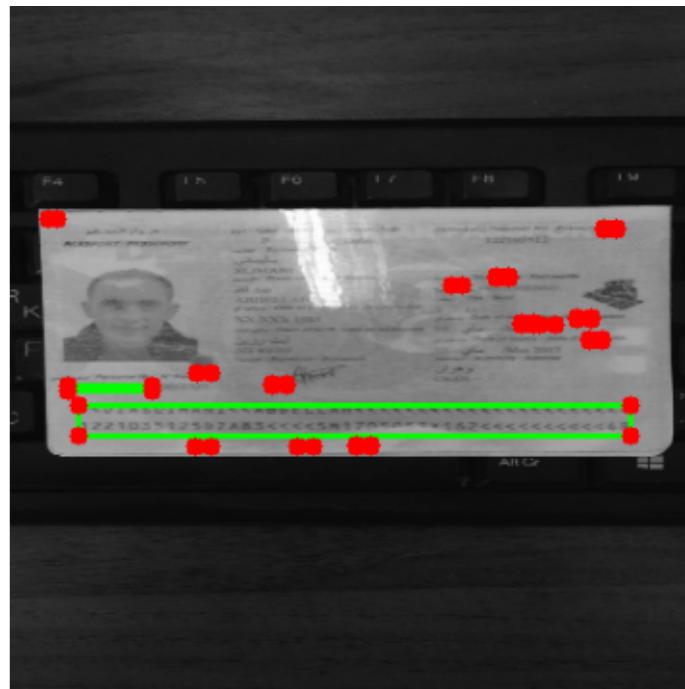
Probability Heatmap



Mask Overlay



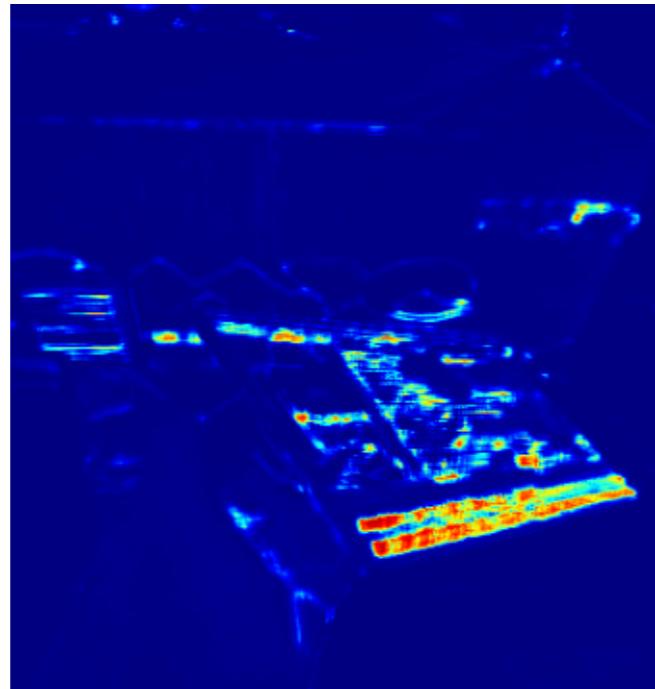
OBB Detection
IoU: 0.684



Original
srb_passport (clips)



Probability Heatmap



Mask Overlay



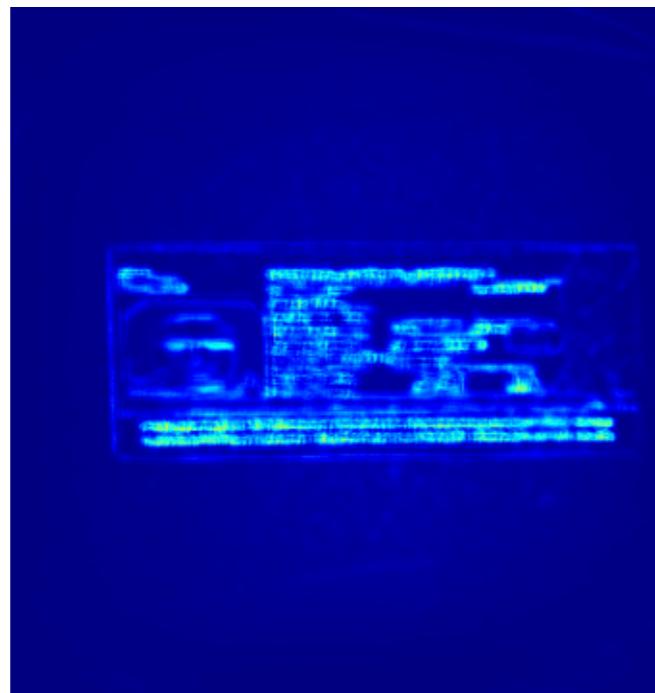
OBB Detection
IoU: 0.477



Original
lva_passport (clips)



Probability Heatmap



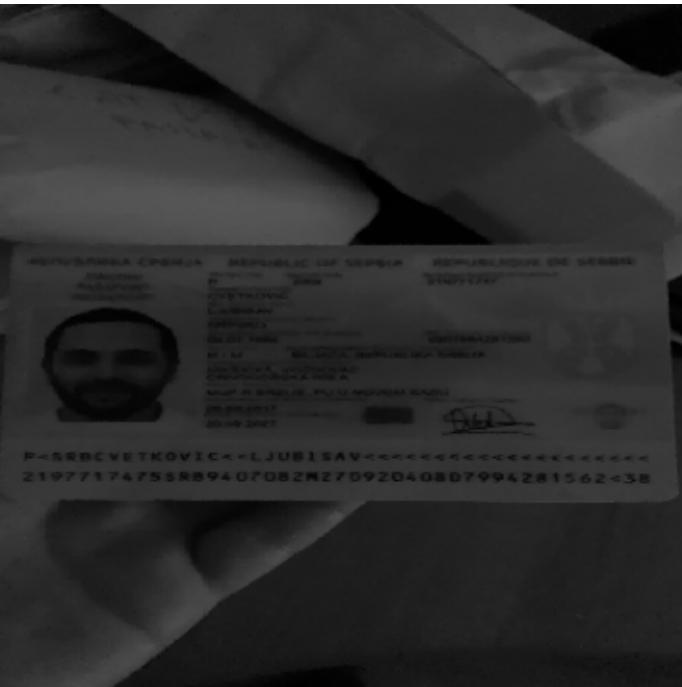
Mask Overlay



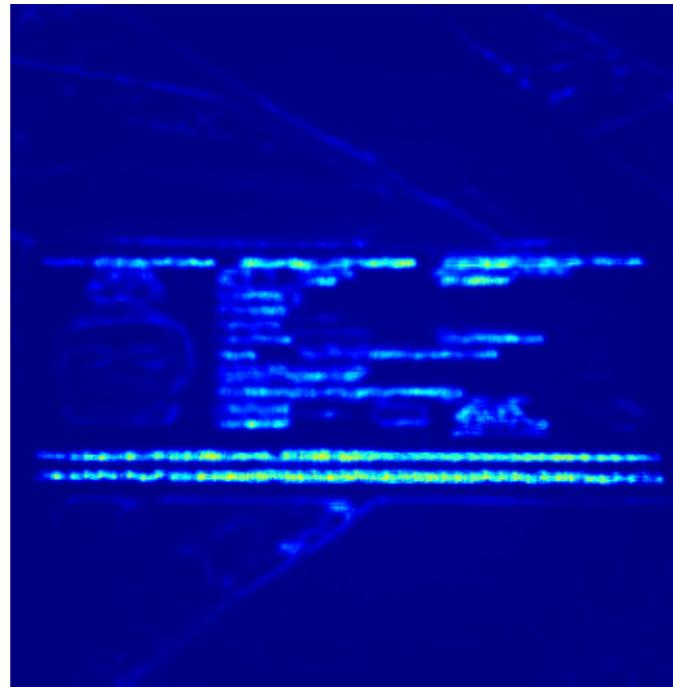
OBB Detection
IoU: 0.028



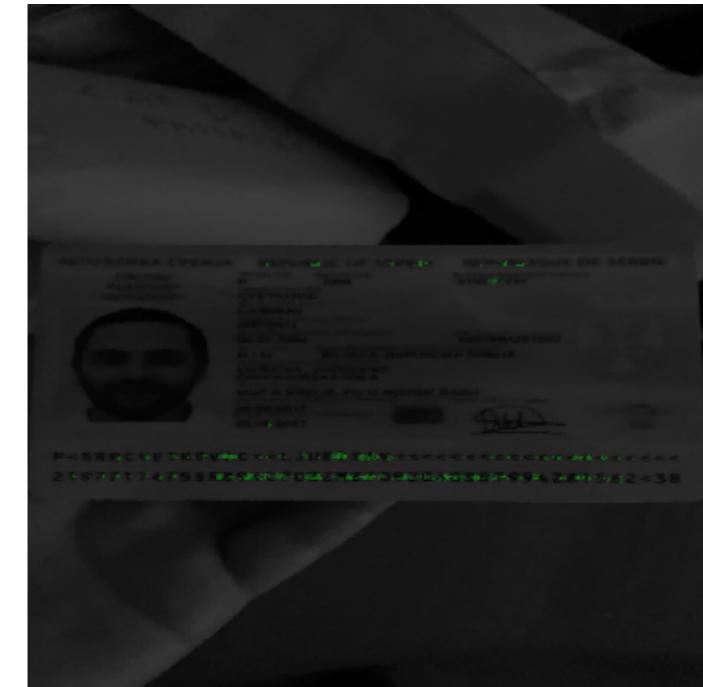
Original
srb_passport (clips)



Probability Heatmap



Mask Overlay



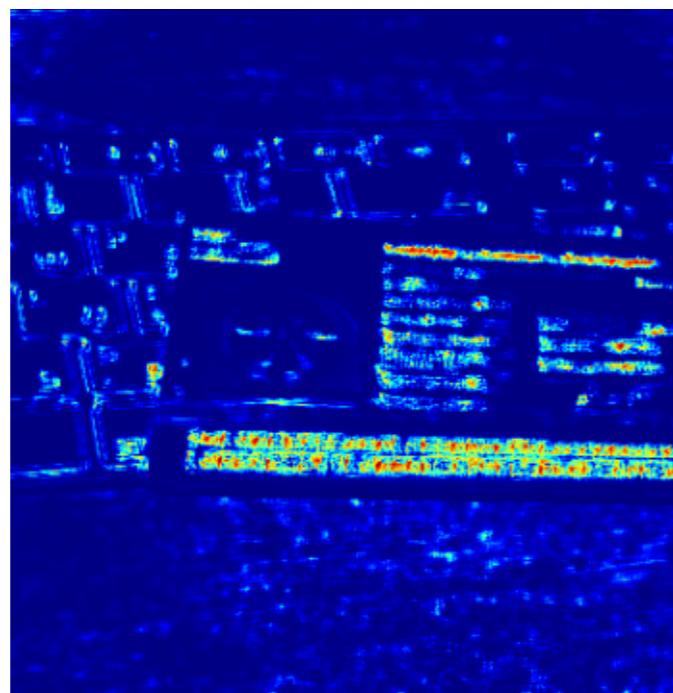
OBB Detection
IoU: 0.070



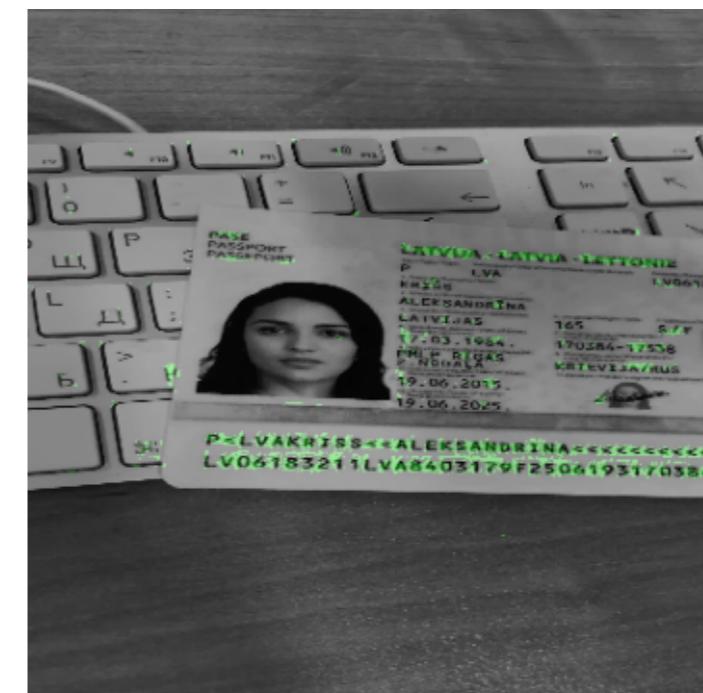
Original
lva_passport (clips)



Probability Heatmap



Mask Overlay



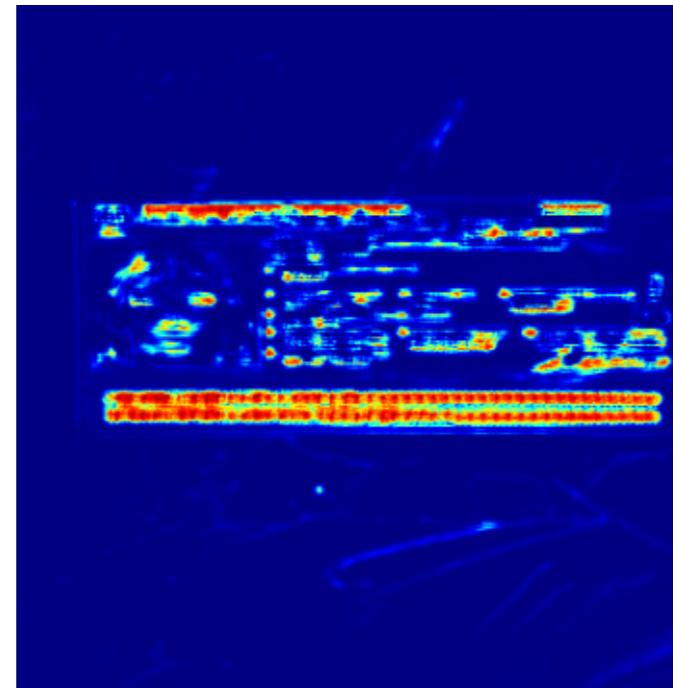
OBB Detection
IoU: 0.318



Original
16_deu_passport_new (unknown)



Probability Heatmap



Mask Overlay



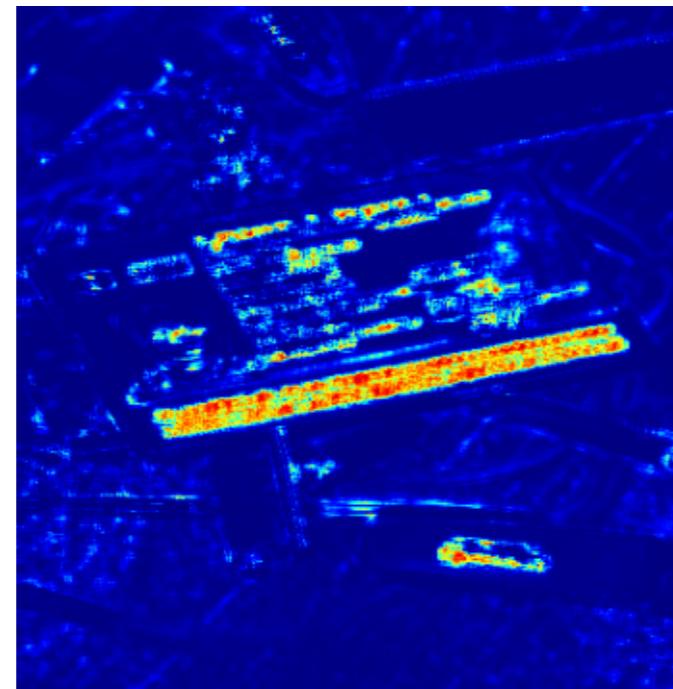
OBB Detection
IoU: 0.520



Original
45_ukr_passport (unknown)



Probability Heatmap



Mask Overlay



OBB Detection
IoU: 0.625



Original
lva_passport (clips)



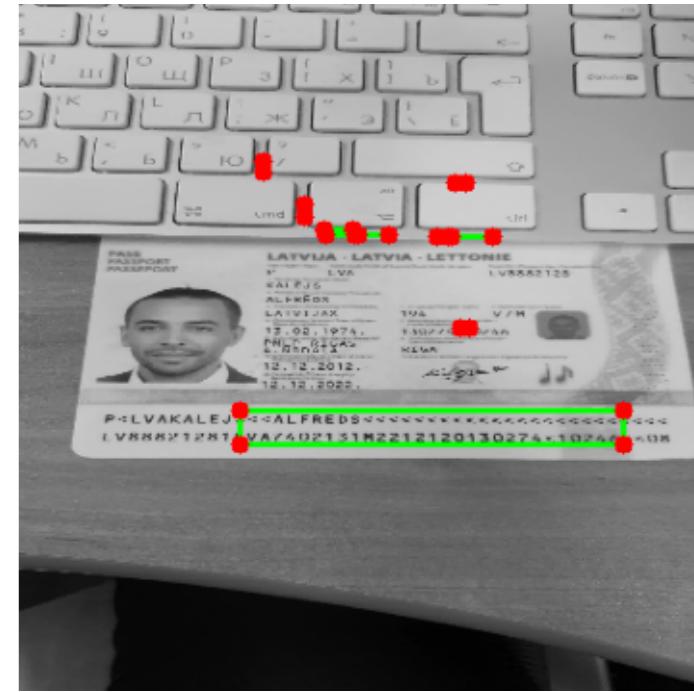
Probability Heatmap



Mask Overlay



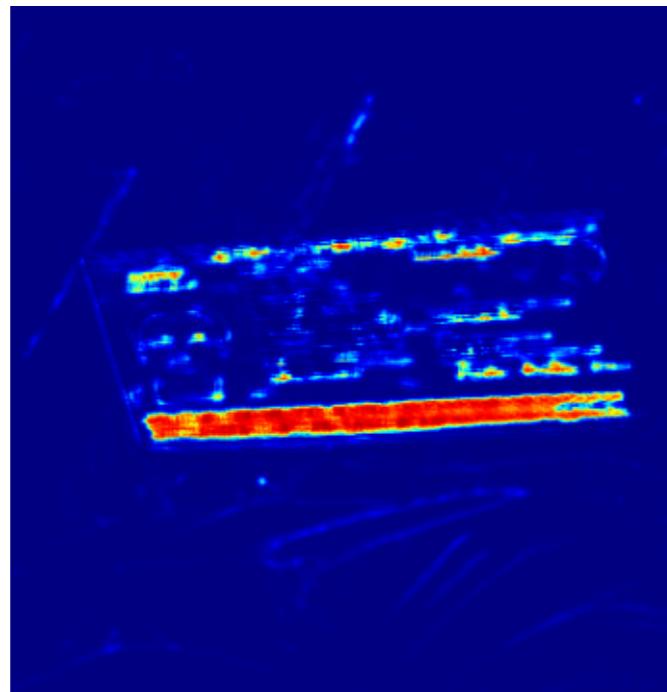
OBB Detection
IoU: 0.468



Original
28_hun_passport (unknown)



Probability Heatmap



Mask Overlay



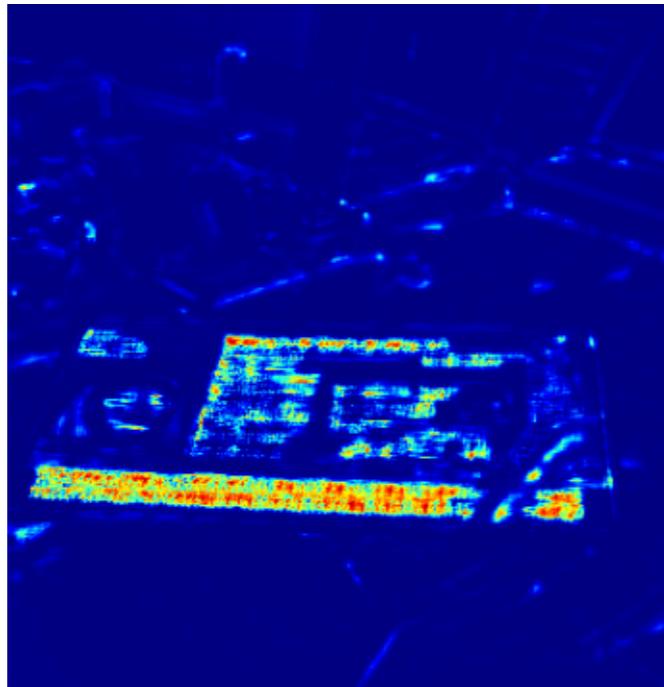
OBB Detection
IoU: 0.698



Original
lva_passport (clips)



Probability Heatmap



Mask Overlay



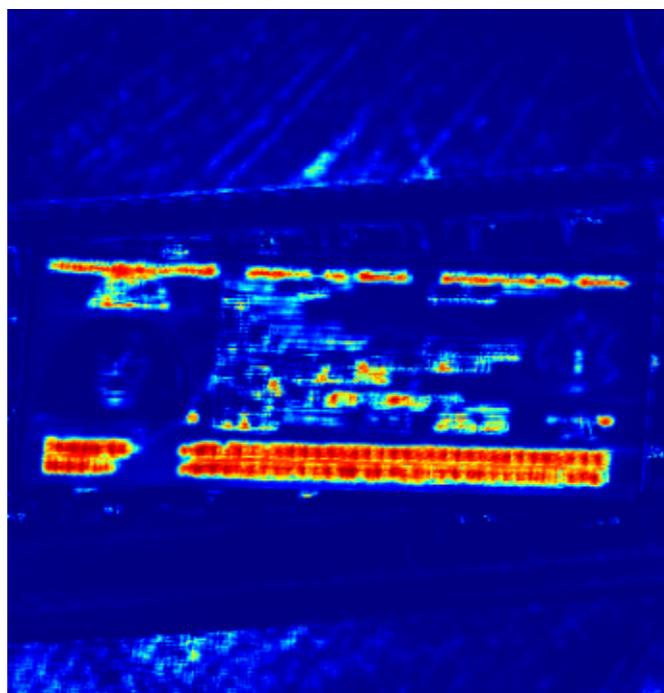
OBB Detection
IoU: 0.504



Original
41_srb_passport (unknown)



Probability Heatmap



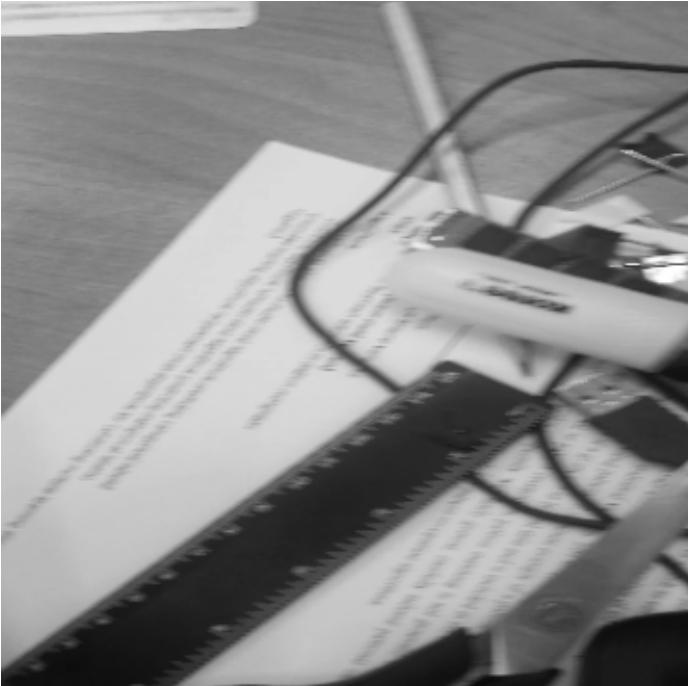
Mask Overlay



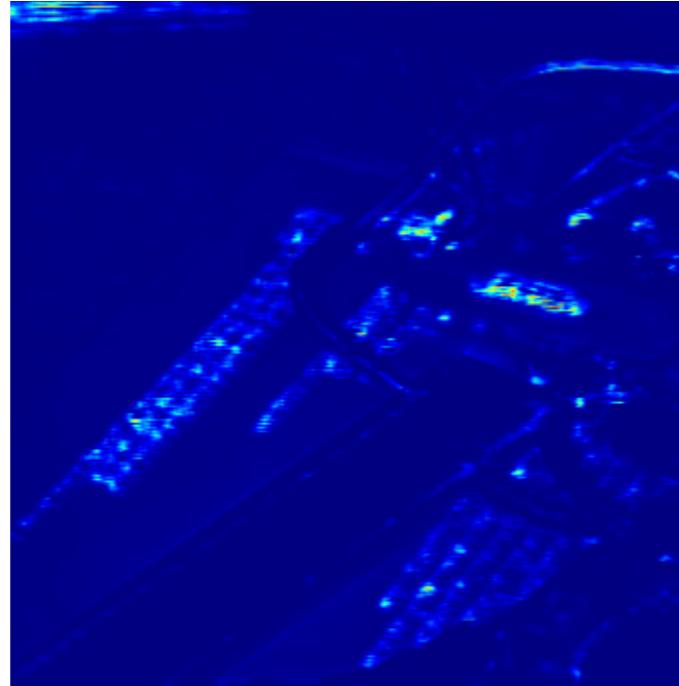
OBB Detection
IoU: 0.190



Original
16_deu_passport_new (unknown)



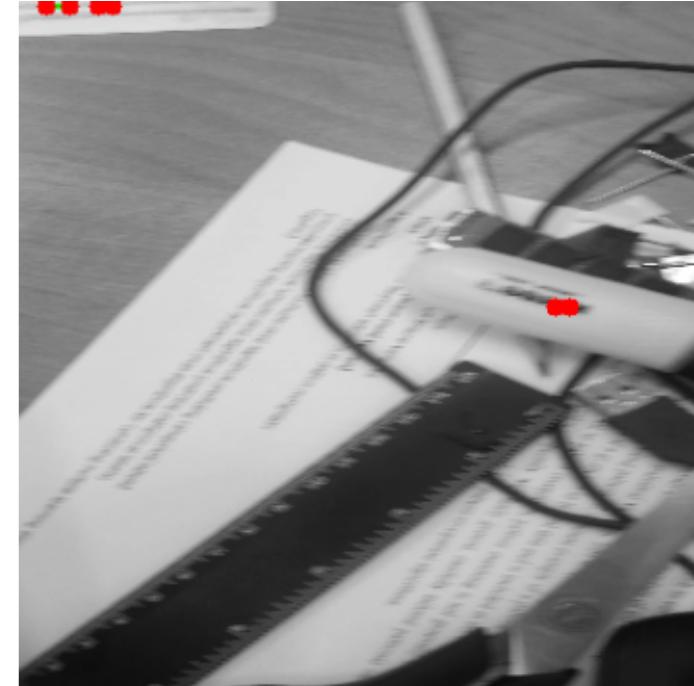
Probability Heatmap



Mask Overlay



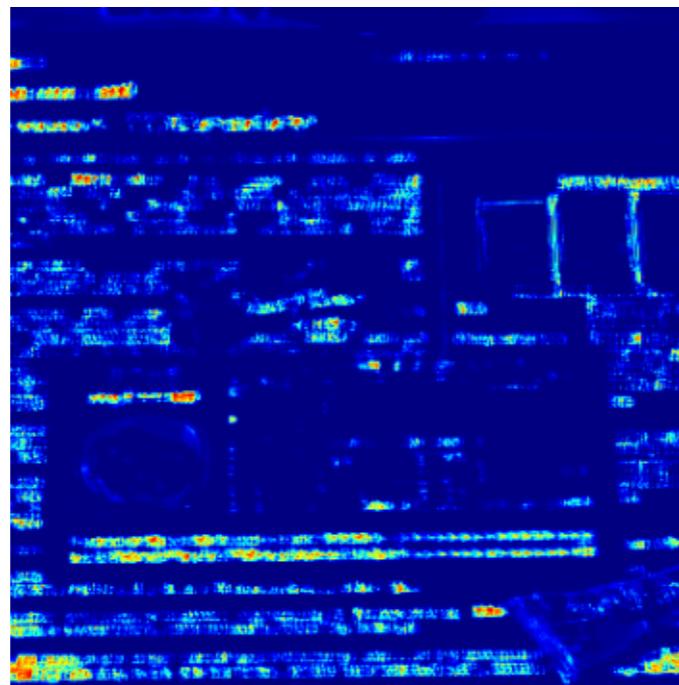
OBB Detection
IoU: 0.000



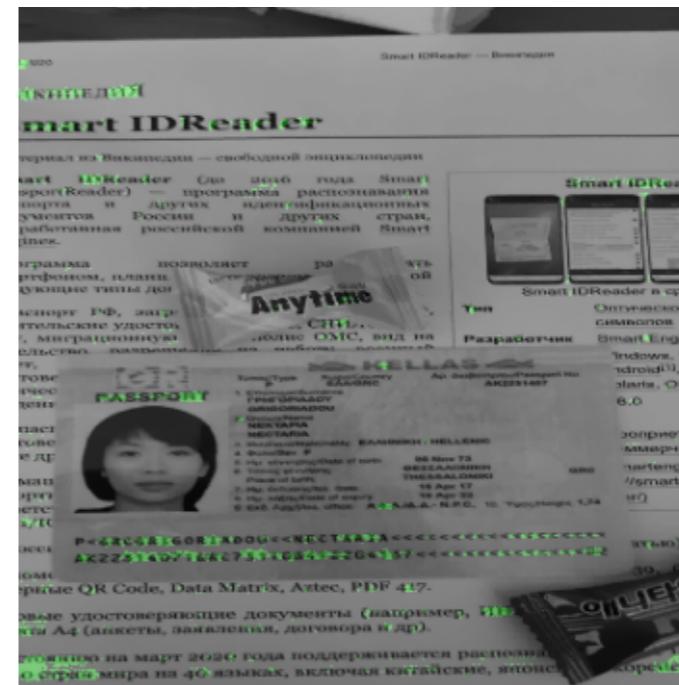
Original
grc_passport (clips)



Probability Heatmap



Mask Overlay



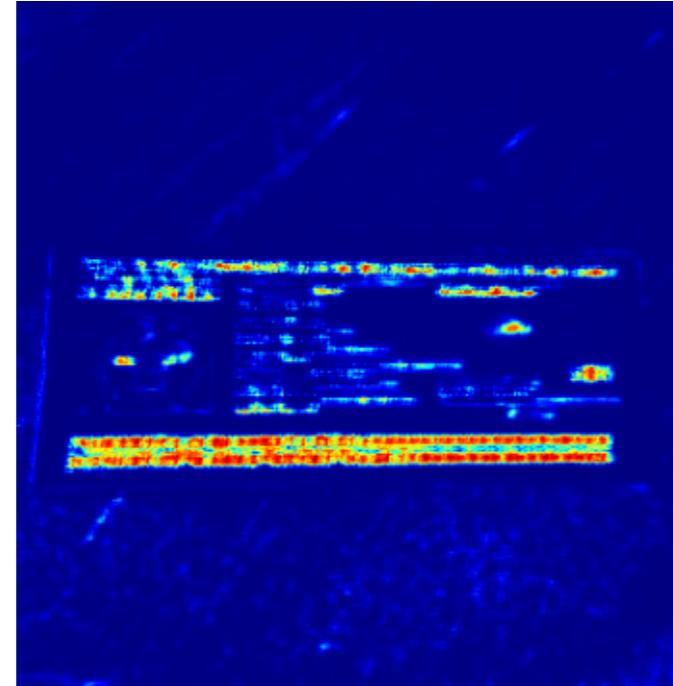
OBB Detection
IoU: 0.127



Original
27_hrv_passport (unknown)



Probability Heatmap



Mask Overlay



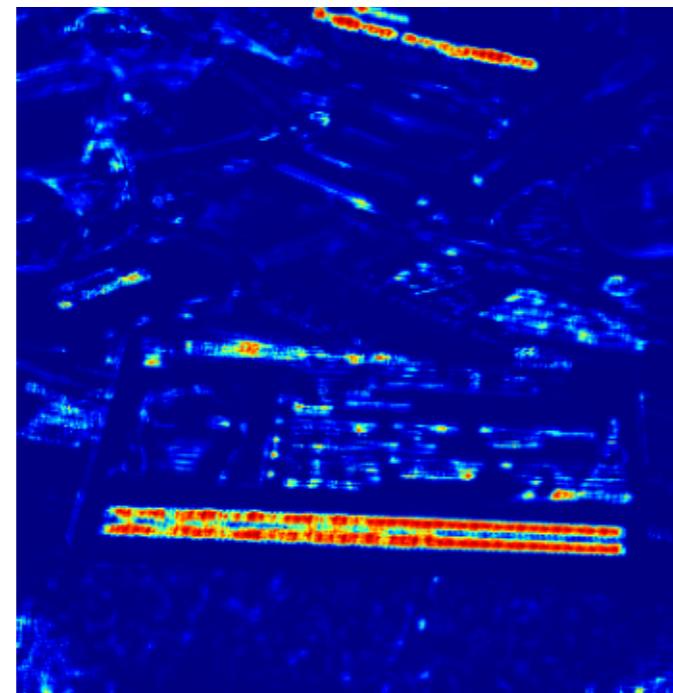
OBB Detection
IoU: 0.623



Original
16_deu_passport_new (unknown)



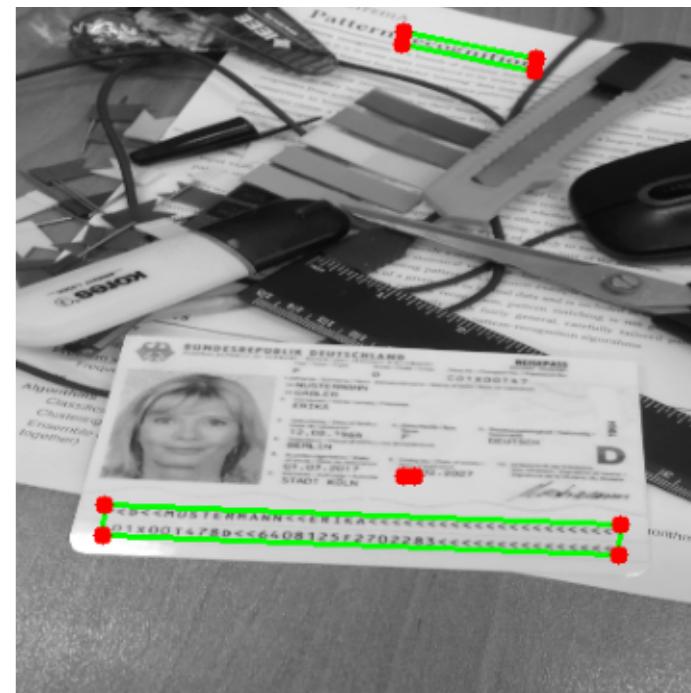
Probability Heatmap



Mask Overlay



OBB Detection
IoU: 0.578



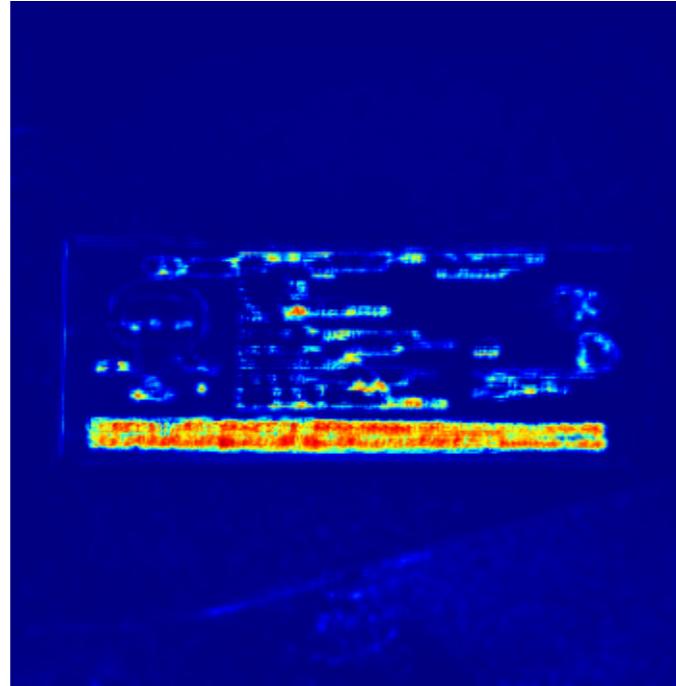
Original
aze_passport (photo)



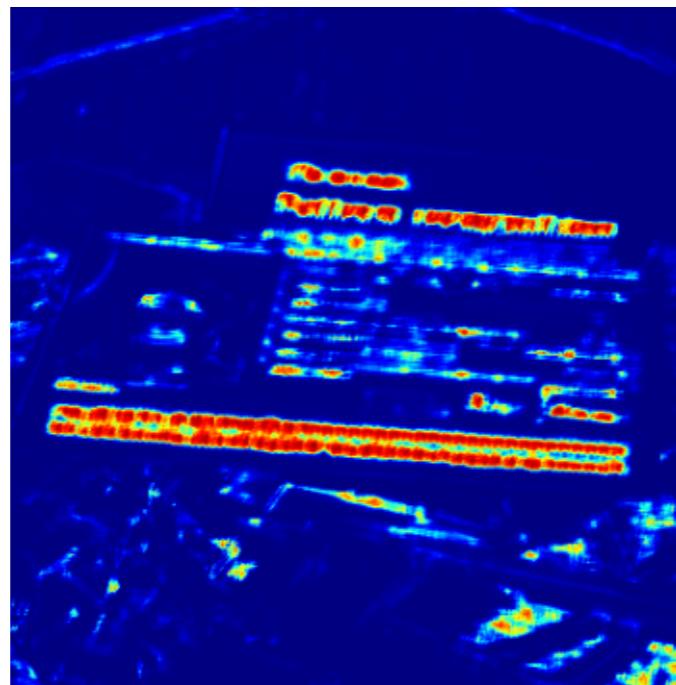
Original
11_cze_passport (unknown)



Probability Heatmap



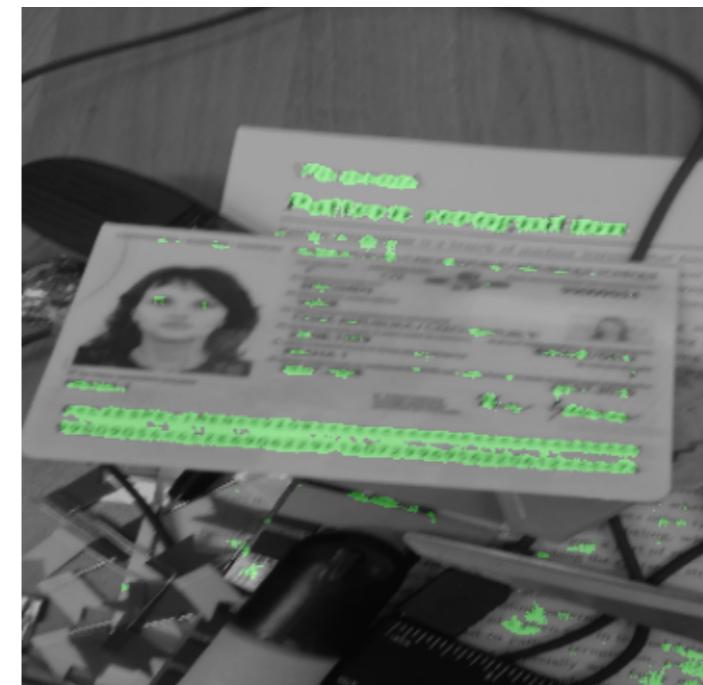
Probability Heatmap



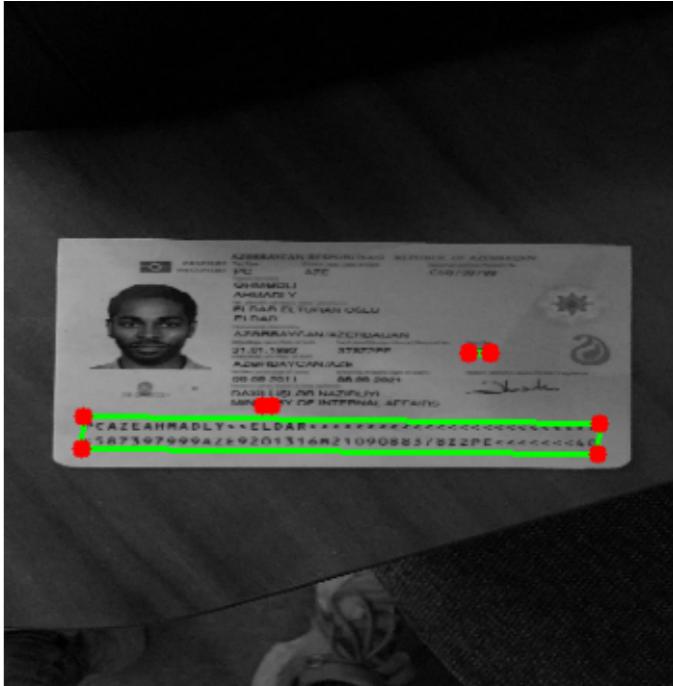
Mask Overlay



Mask Overlay



OBB Detection
IoU: 0.701



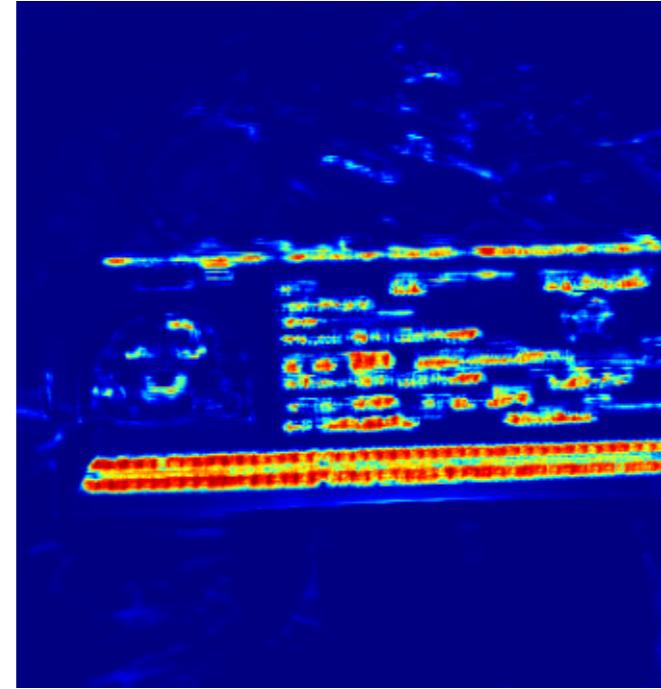
OBB Detection
IoU: 0.503



Original
34_mda_passport (unknown)



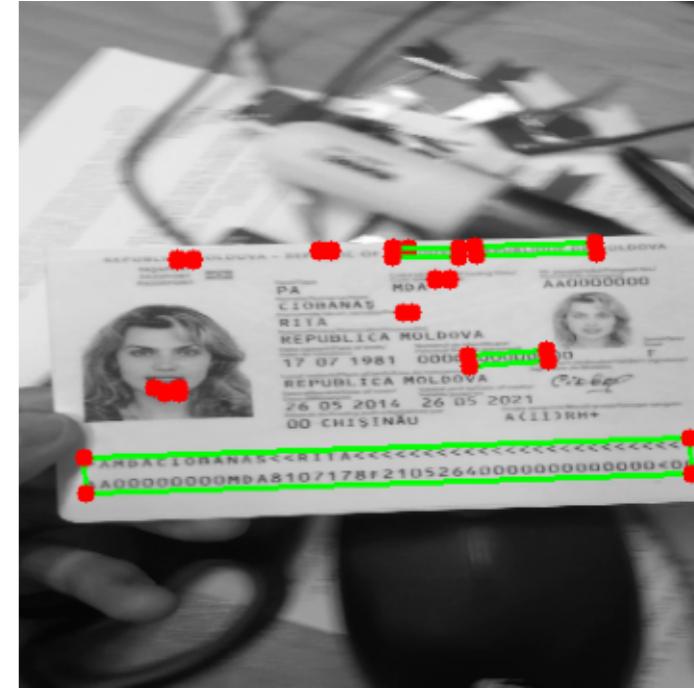
Probability Heatmap



Mask Overlay



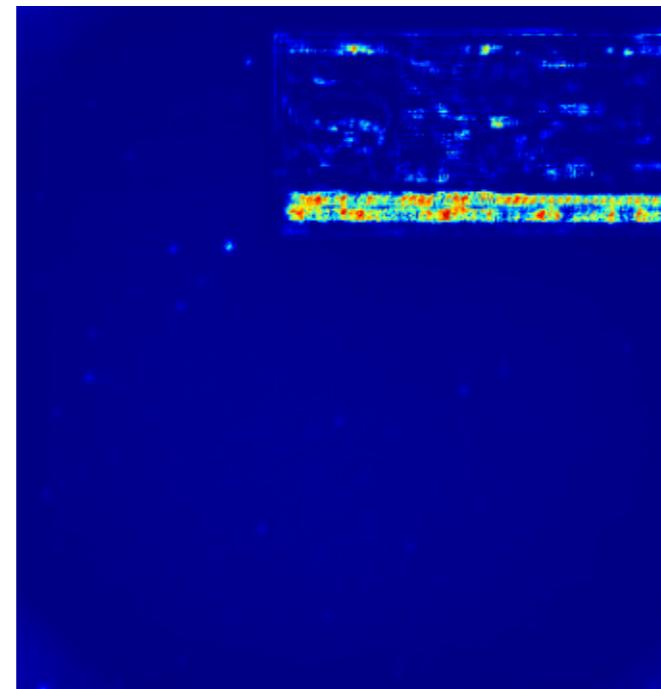
OBB Detection
IoU: 0.210



Original
srb_passport (scan_upright)



Probability Heatmap



Mask Overlay



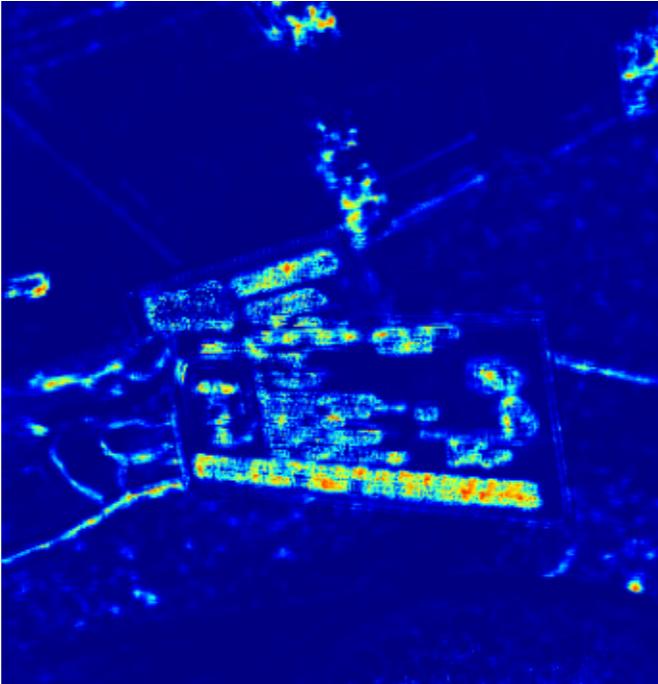
OBB Detection
IoU: 0.453



Original
aze_passport (photo)



Probability Heatmap



Mask Overlay



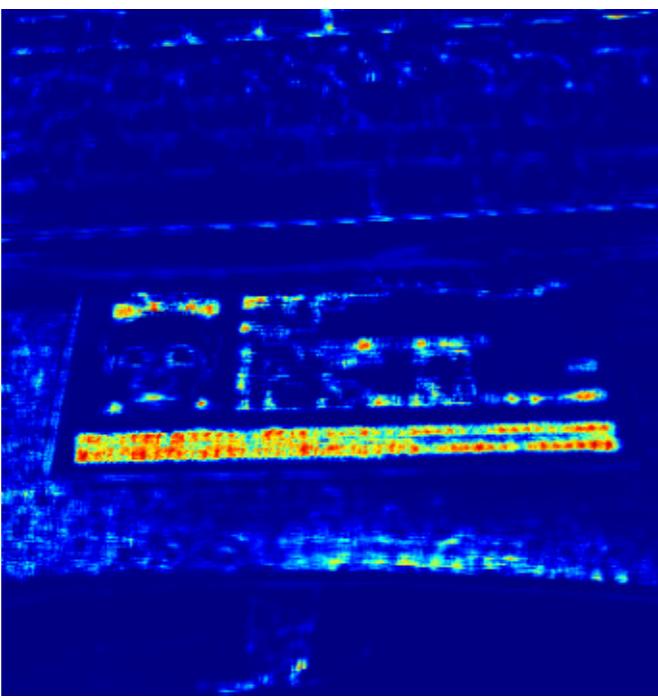
OBB Detection
IoU: 0.271



Original
grc_passport (clips)



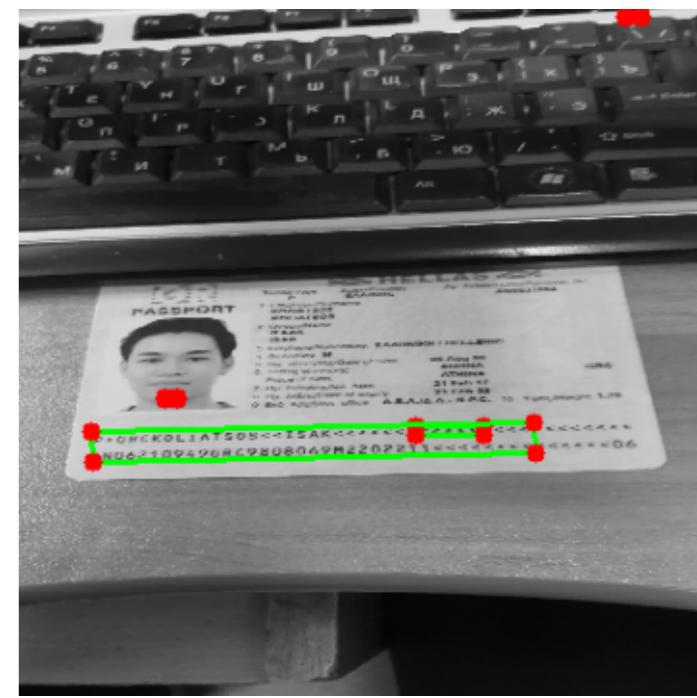
Probability Heatmap



Mask Overlay



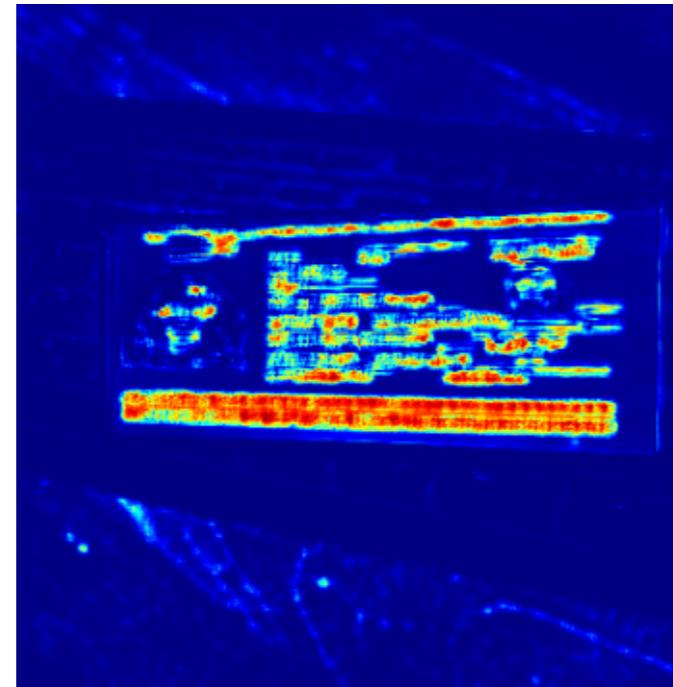
OBB Detection
IoU: 0.561



Original
34_mda_passport (unknown)



Probability Heatmap



Mask Overlay



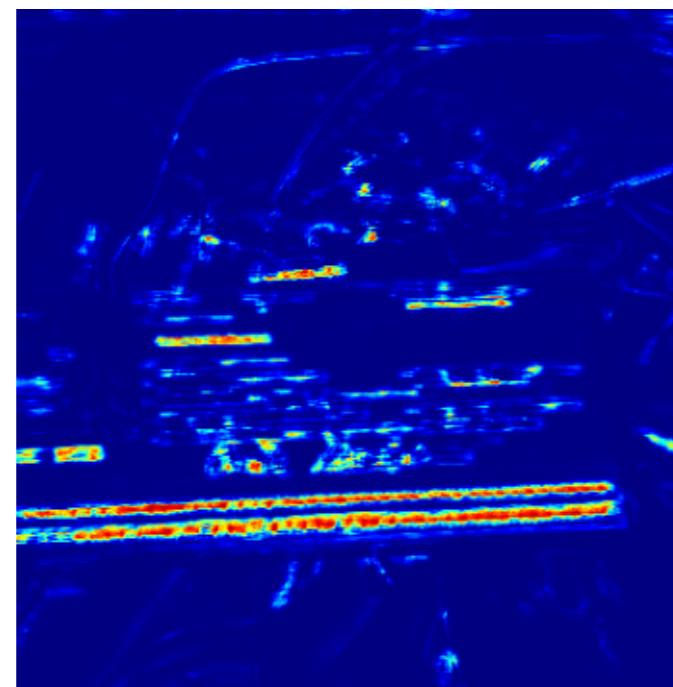
OBB Detection
IoU: 0.187



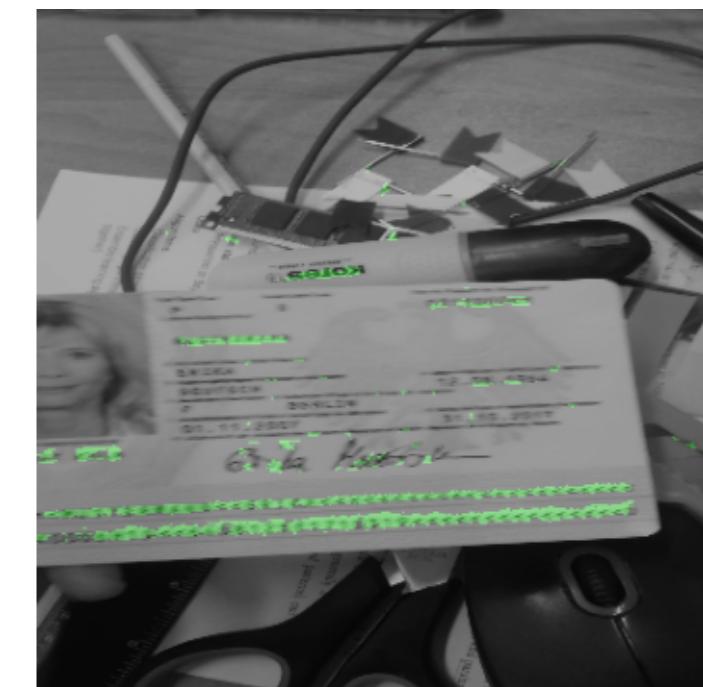
Original
17_deu_passport_old (unknown)



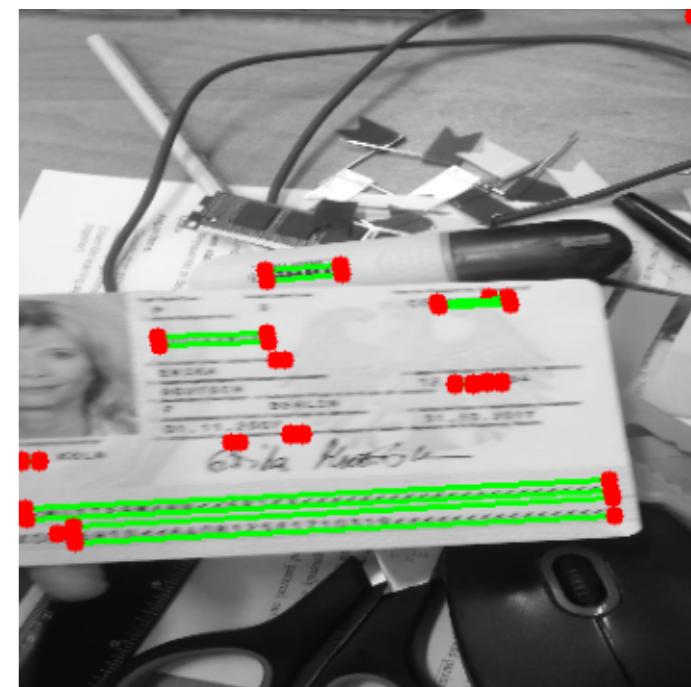
Probability Heatmap



Mask Overlay



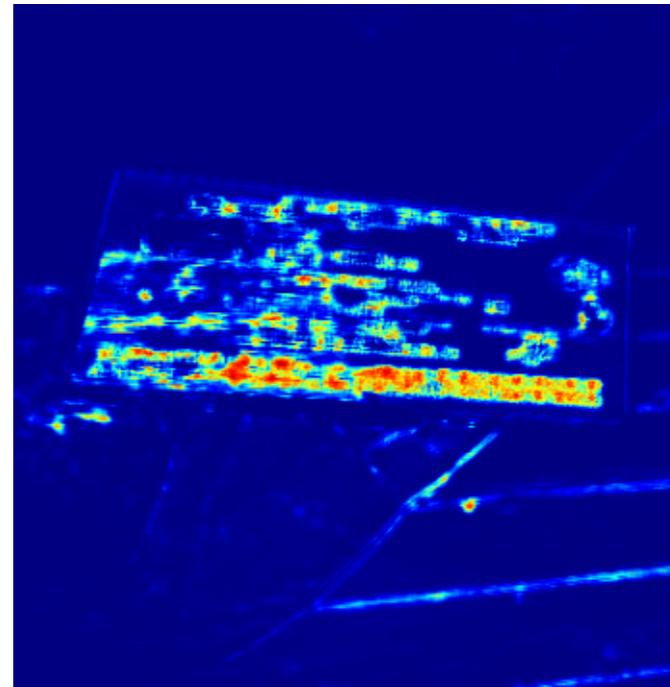
OBB Detection
IoU: 0.373



Original
aze_passport (clips)



Probability Heatmap



Mask Overlay



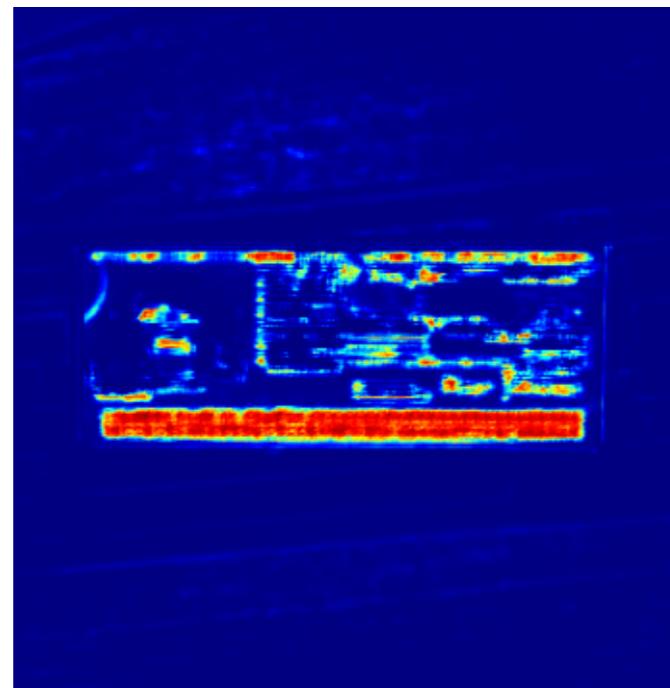
OBB Detection
IoU: 0.436



Original
11_cze_passport (unknown)



Probability Heatmap



Mask Overlay



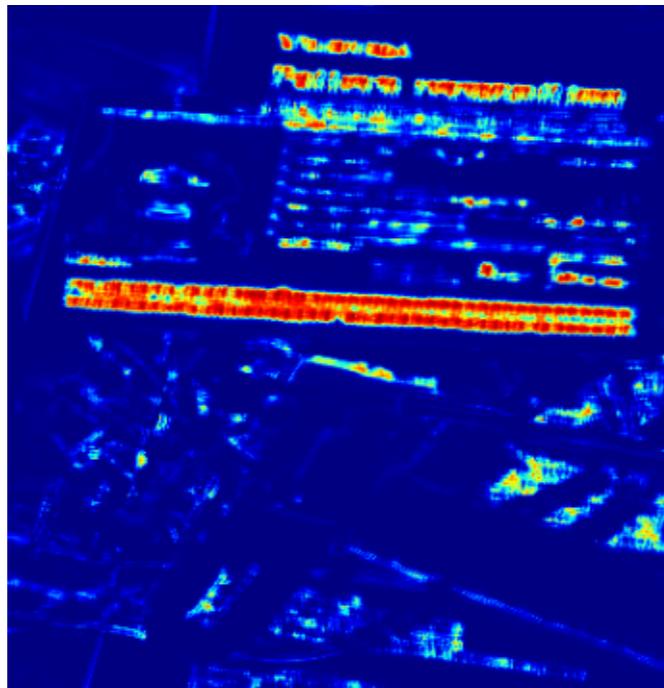
OBB Detection
IoU: 0.569



Original
11_cze_passport (unknown)



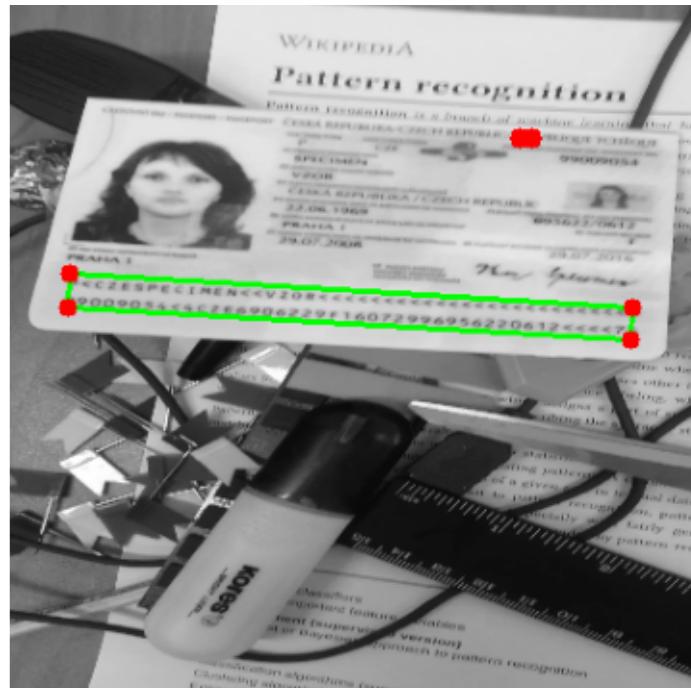
Probability Heatmap



Mask Overlay



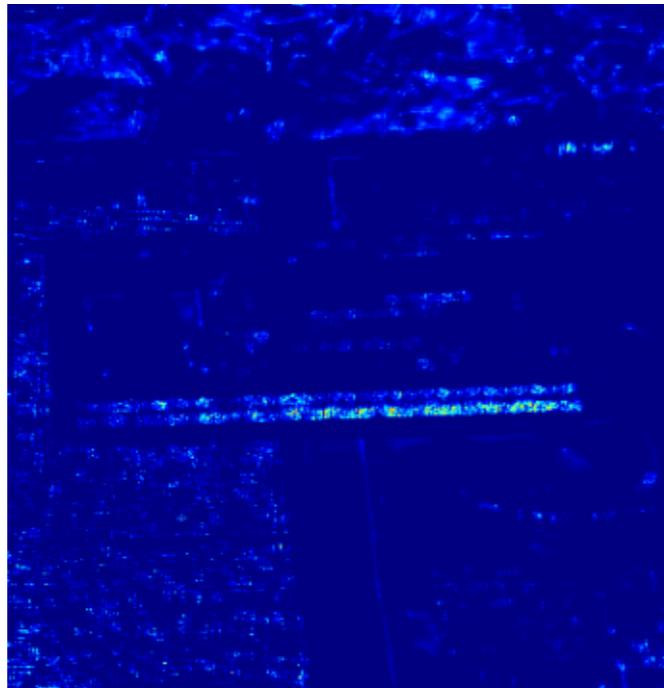
OBB Detection
IoU: 0.558



Original
srb_passport (clips)



Probability Heatmap



Mask Overlay



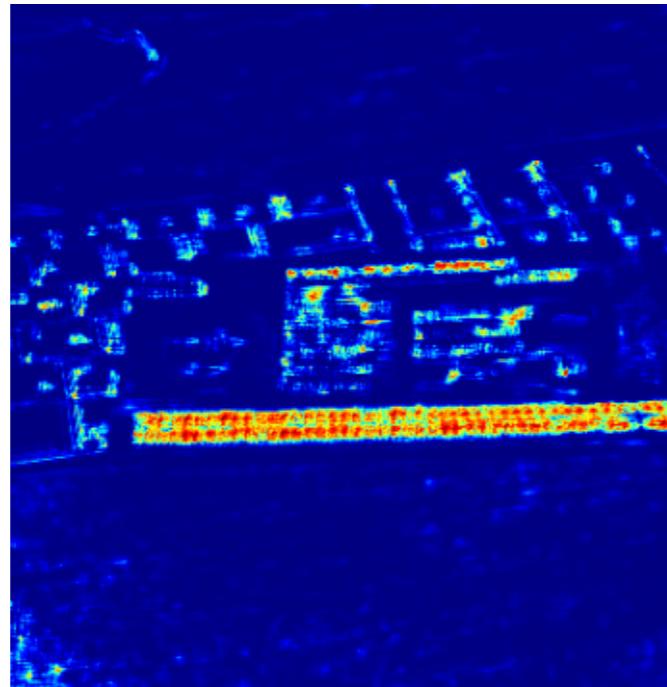
OBB Detection
IoU: 0.027



Original
lva_passport (clips)



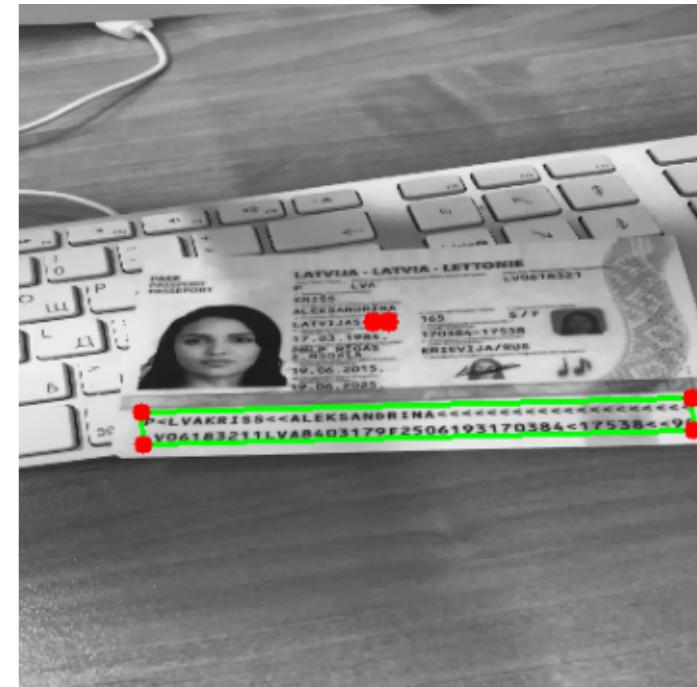
Probability Heatmap



Mask Overlay



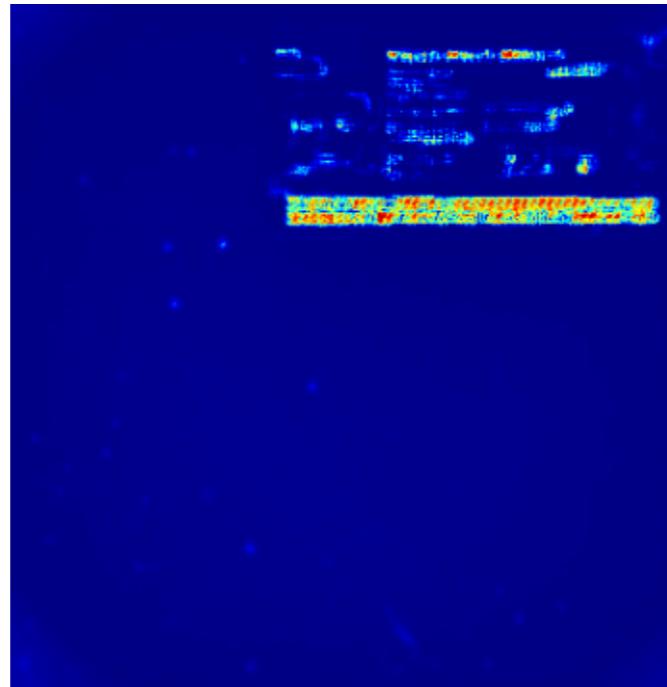
OBB Detection
IoU: 0.589



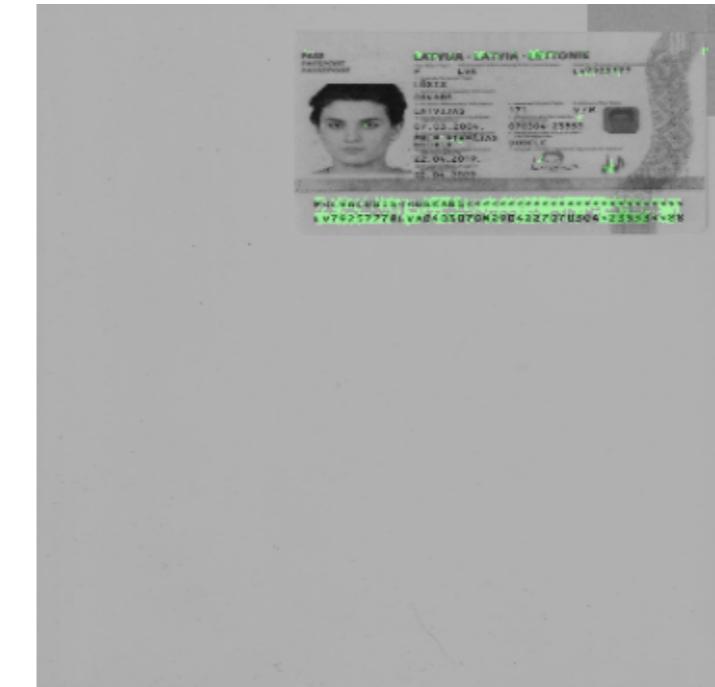
Original
lva_passport (scan_upright)



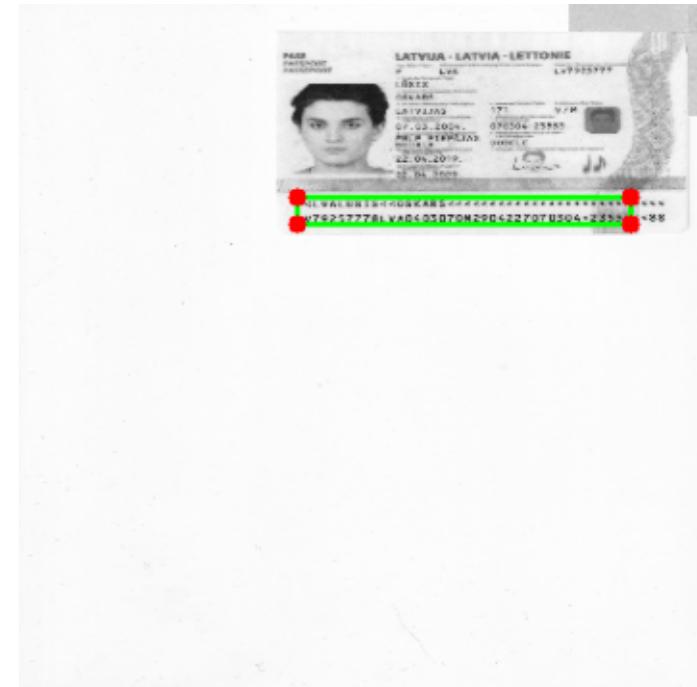
Probability Heatmap



Mask Overlay



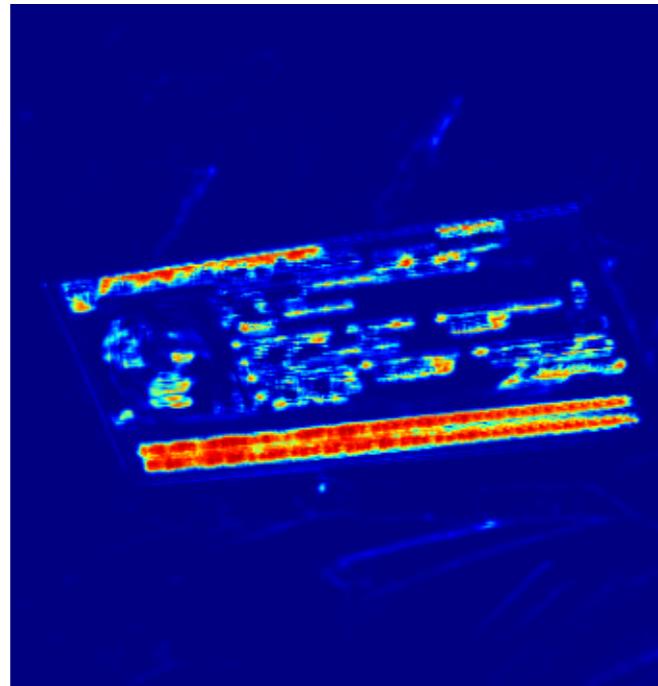
OBB Detection
IoU: 0.495



Original
16_deu_passport_new (unknown)



Probability Heatmap



Mask Overlay



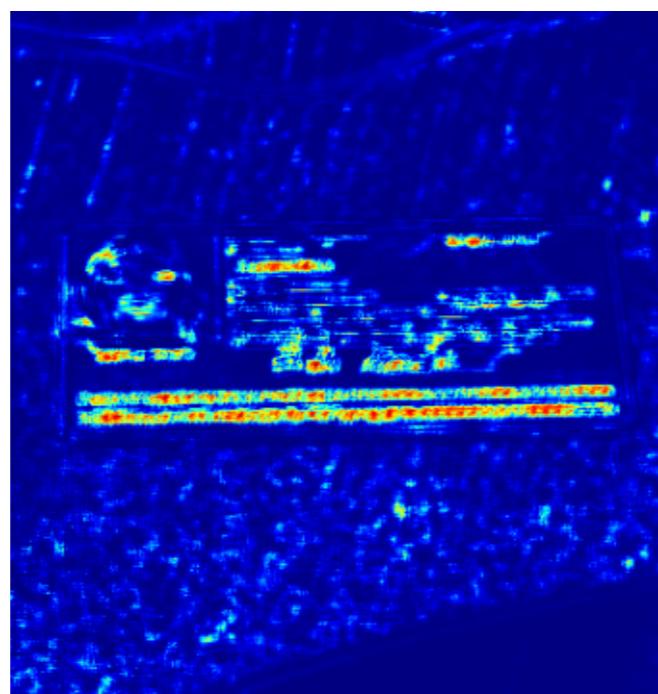
OBB Detection
IoU: 0.555



Original
17_deu_passport_old (unknown)



Probability Heatmap



Mask Overlay



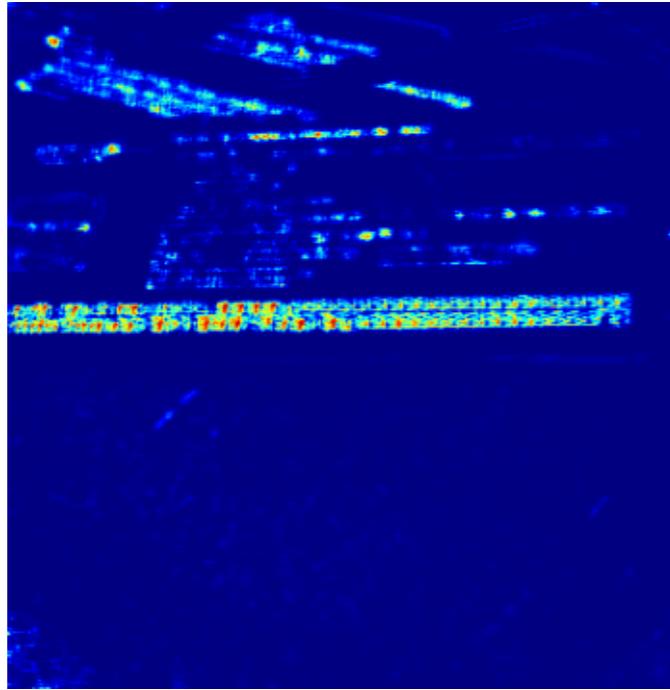
OBB Detection
IoU: 0.376



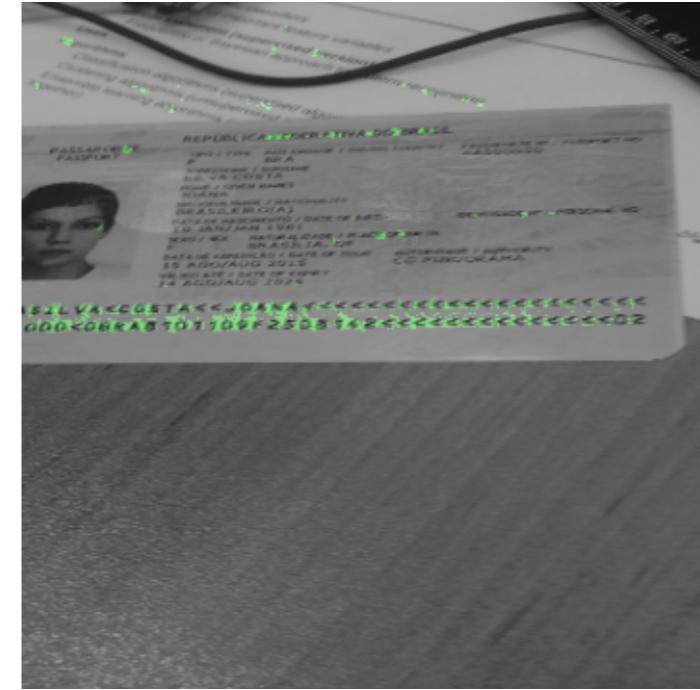
Original
06_bra_passport (unknown)



Probability Heatmap



Mask Overlay



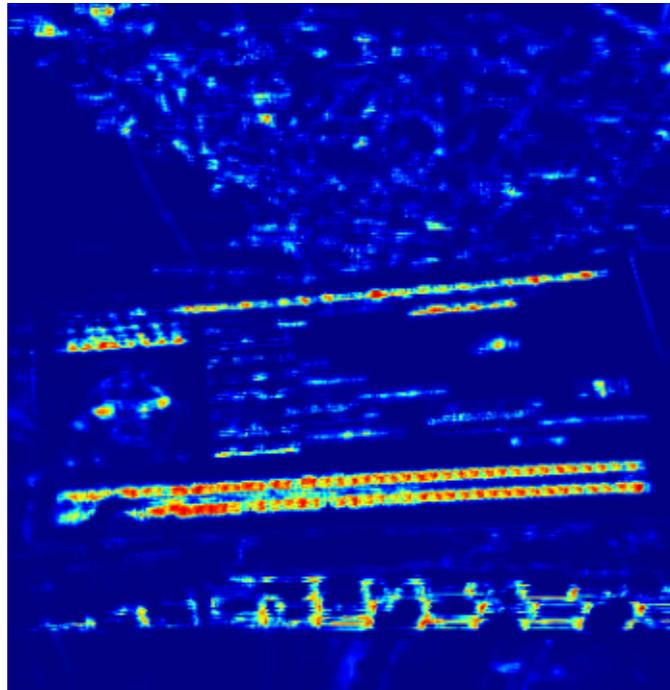
OBB Detection
IoU: 0.268



Original
27_hrv_passport (unknown)



Probability Heatmap



Mask Overlay



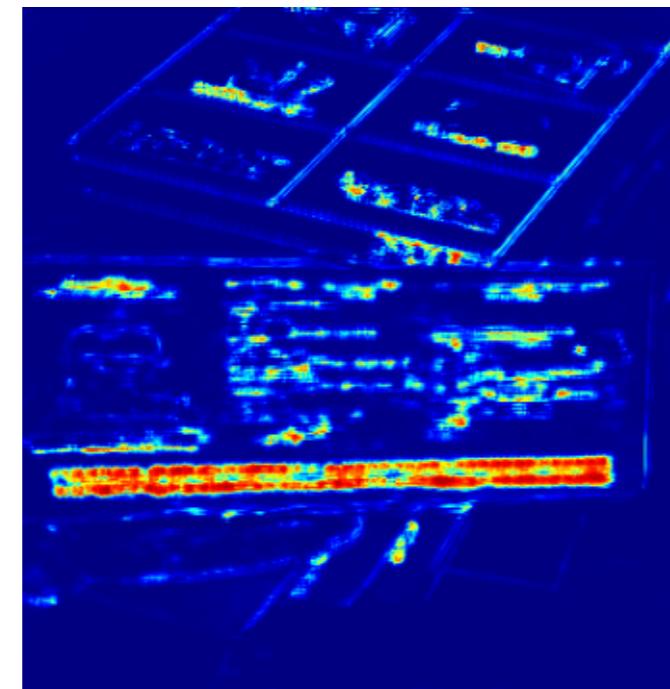
OBB Detection
IoU: 0.366



Original
18_dza_passport (unknown)



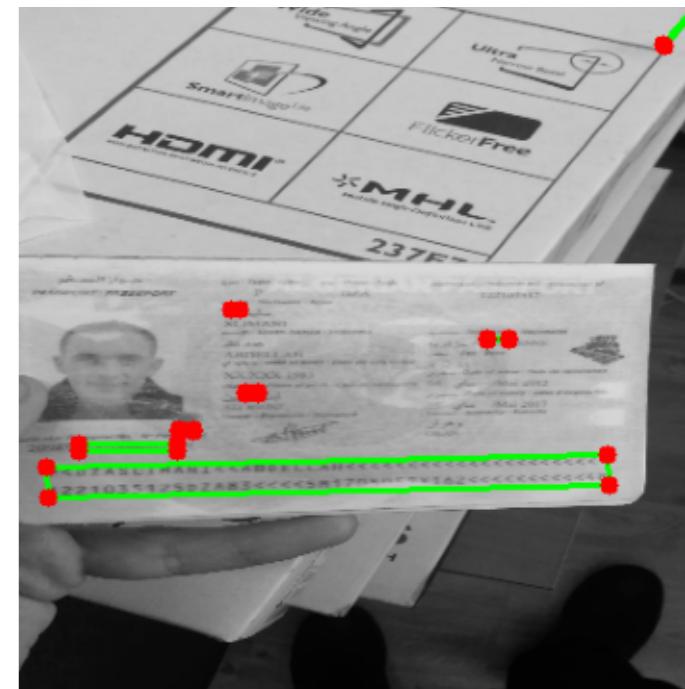
Probability Heatmap



Mask Overlay



OBB Detection
IoU: 0.570



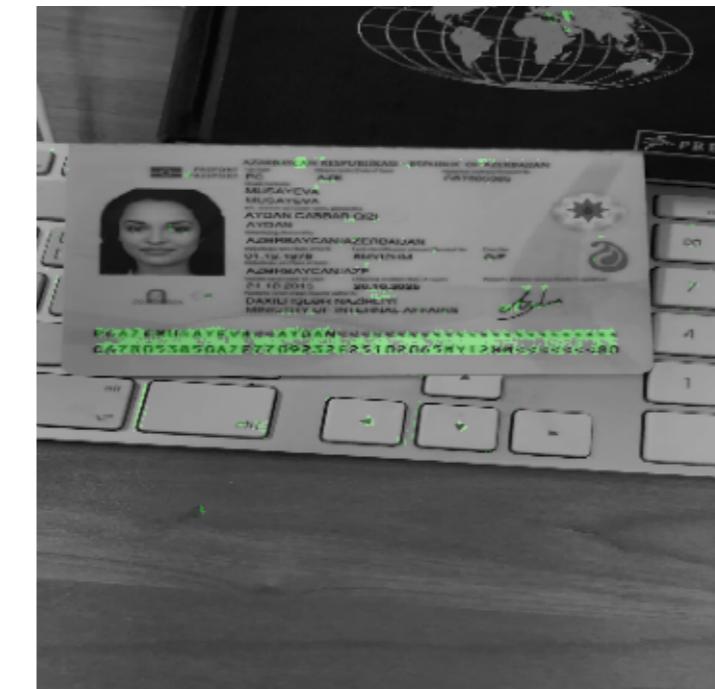
Original
aze_passport (clips)



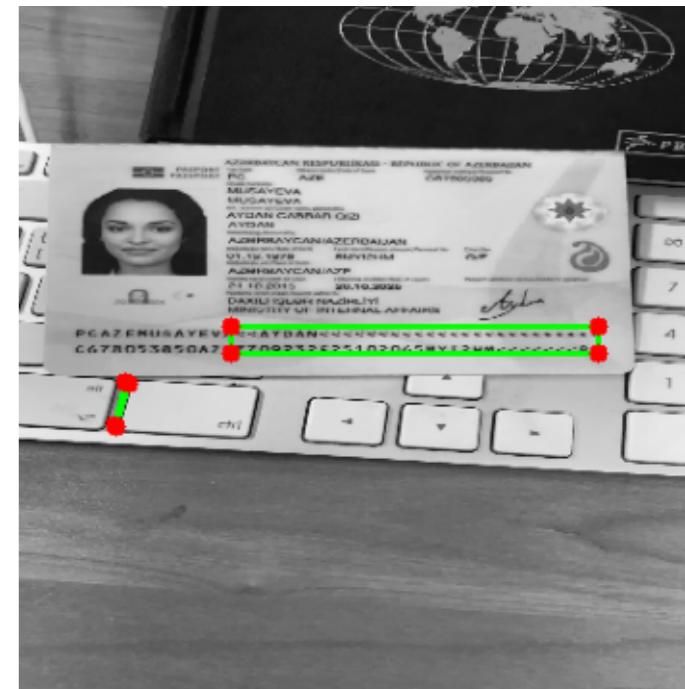
Probability Heatmap



Mask Overlay



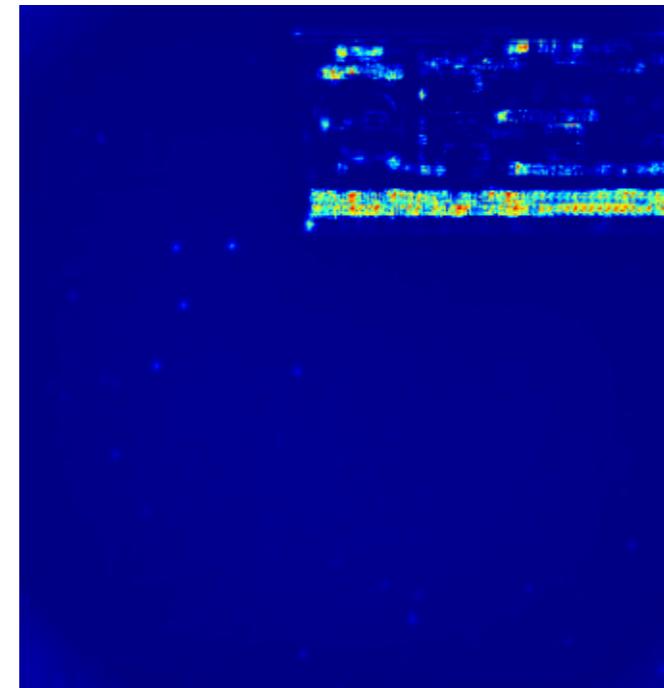
OBB Detection
IoU: 0.587



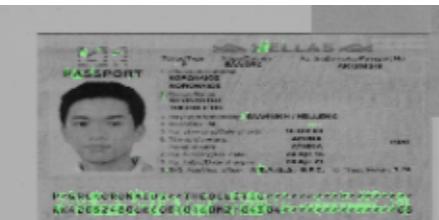
Original
grc_passport (scan_upright)



Probability Heatmap



Mask Overlay



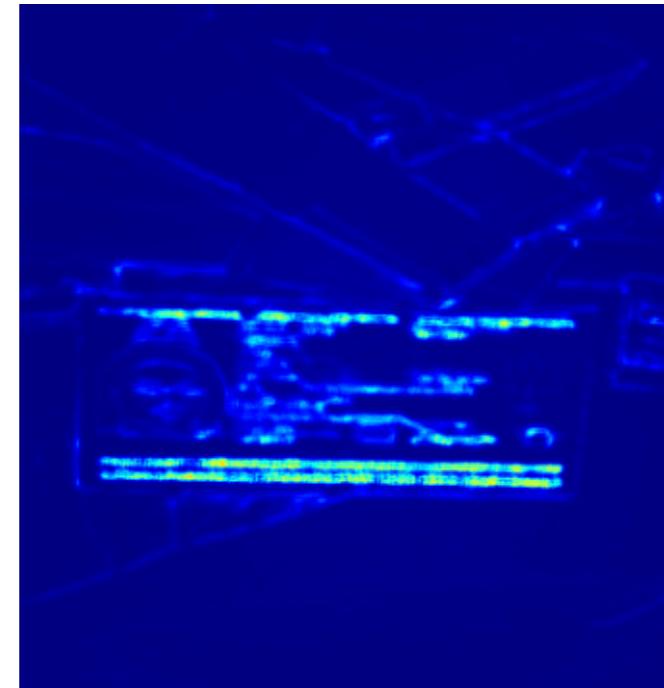
OBB Detection
IoU: 0.393



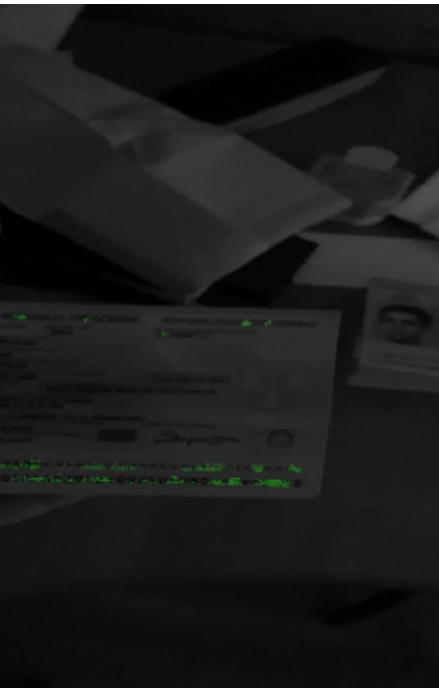
Original
srb_passport (clips)



Probability Heatmap



Mask Overlay



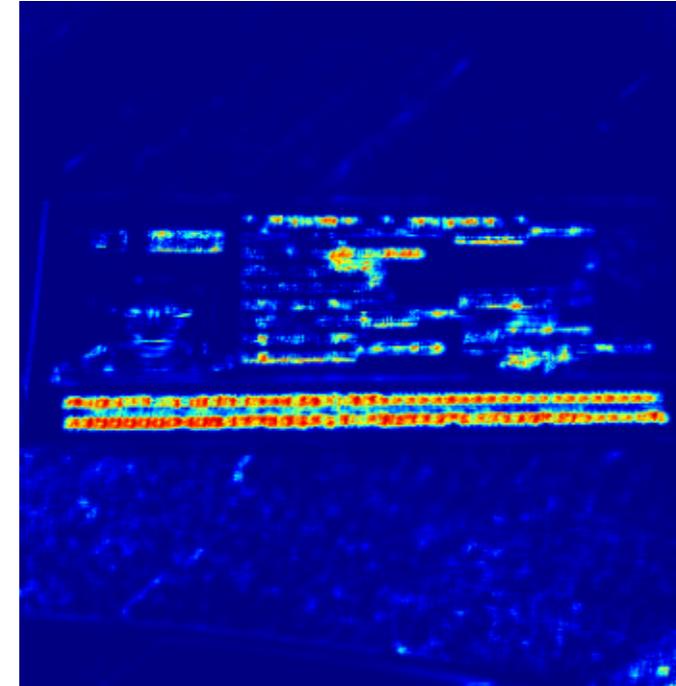
OBB Detection
IoU: 0.135



Original
45_ukr_passport (unknown)



Probability Heatmap



Mask Overlay



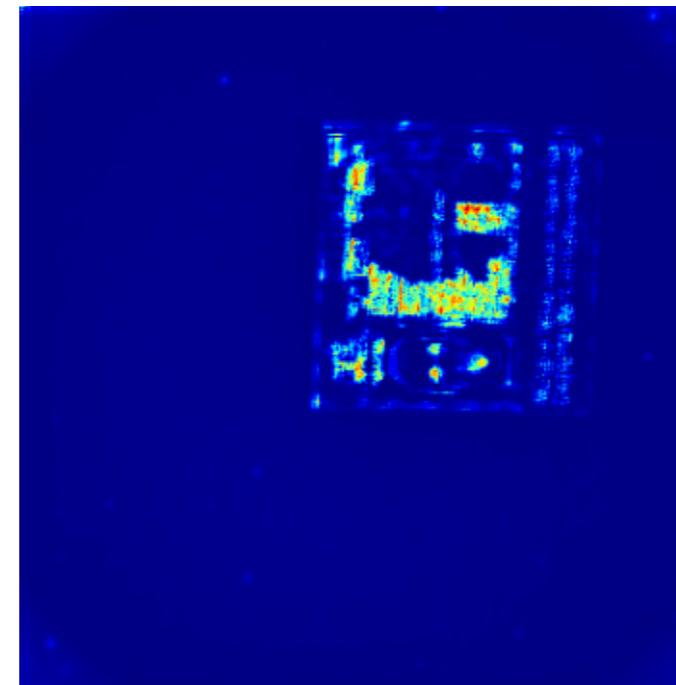
OBB Detection
IoU: 0.491



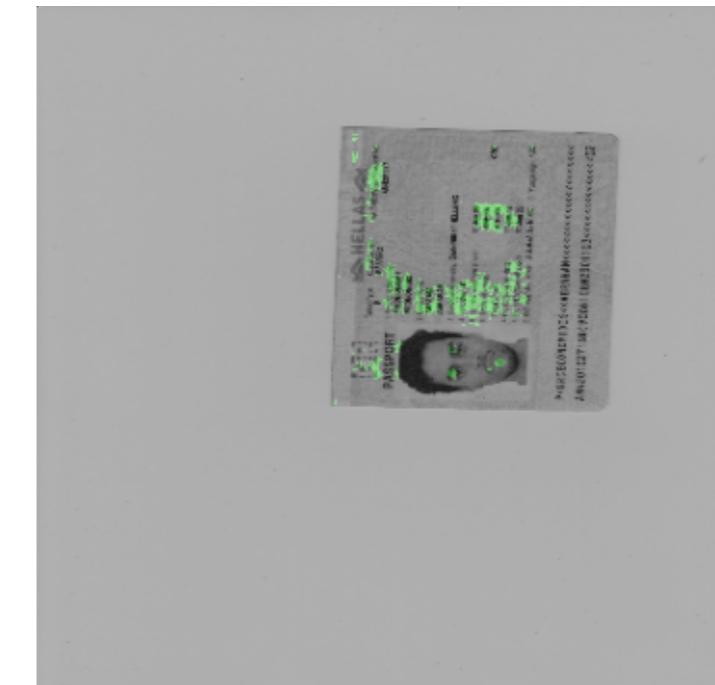
Original
grc_passport (scan_rotated)



Probability Heatmap



Mask Overlay



OBB Detection
IoU: 0.000



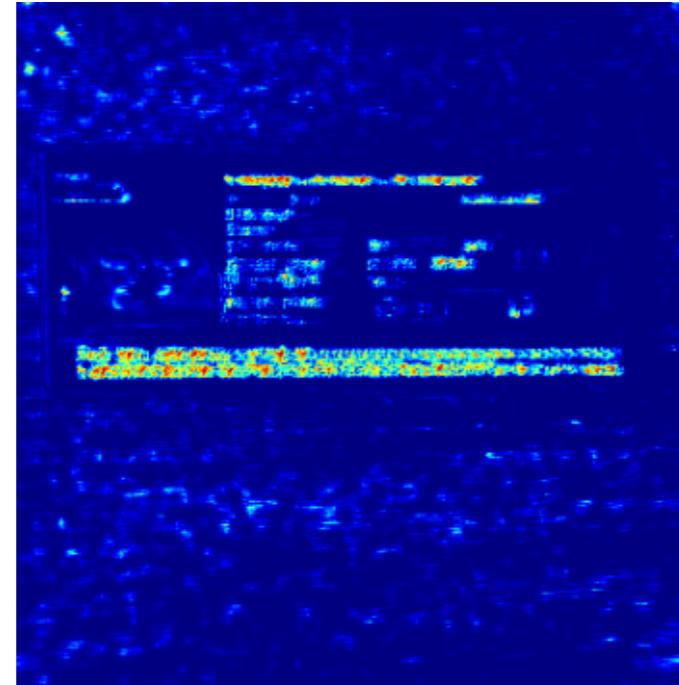
Original
lva_passport (clips)



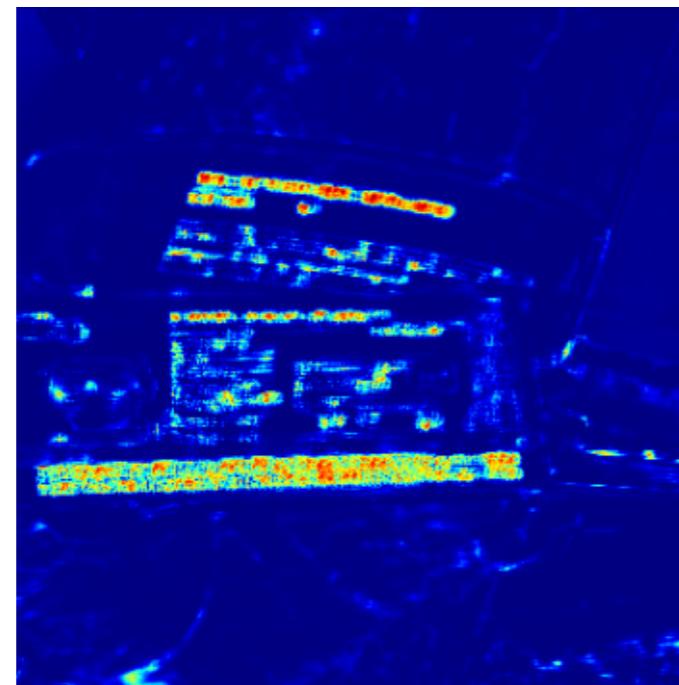
Original
lva_passport (clips)



Probability Heatmap



Probability Heatmap



Mask Overlay



Mask Overlay



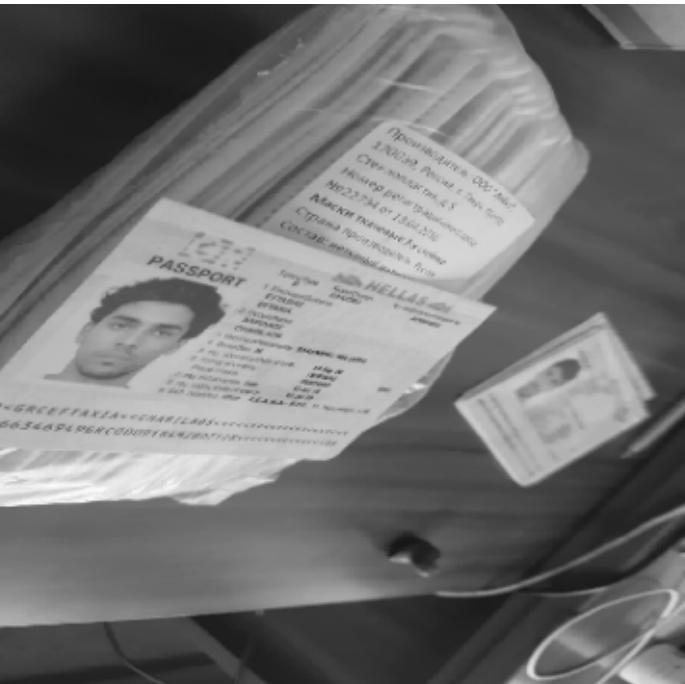
OBB Detection
IoU: 0.300



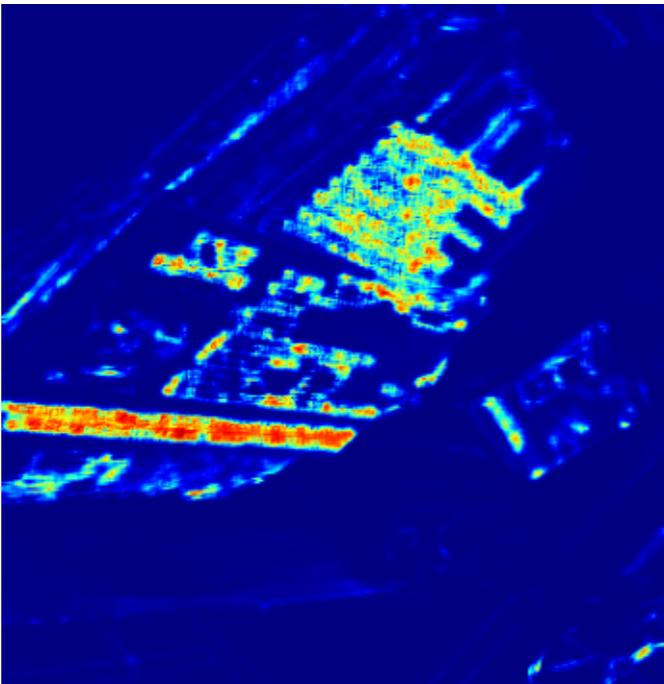
OBB Detection
IoU: 0.331



Original
grc_passport (clips)



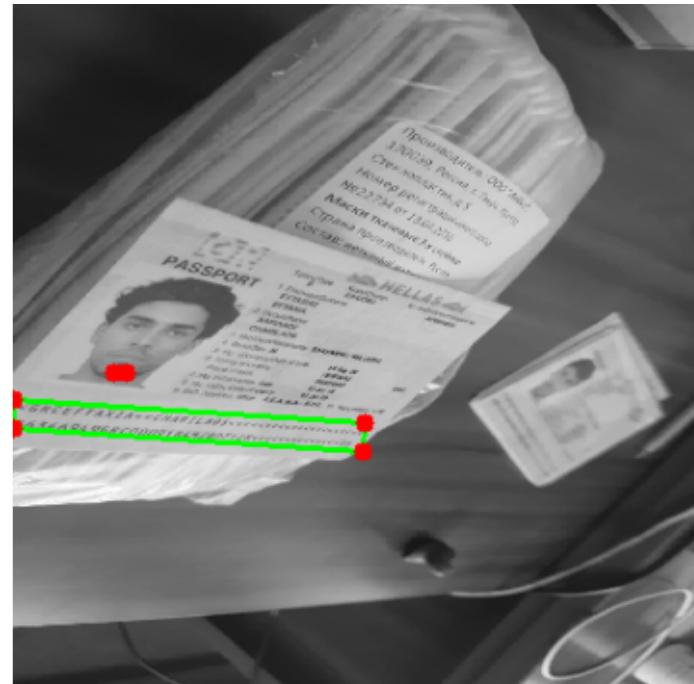
Probability Heatmap



Mask Overlay



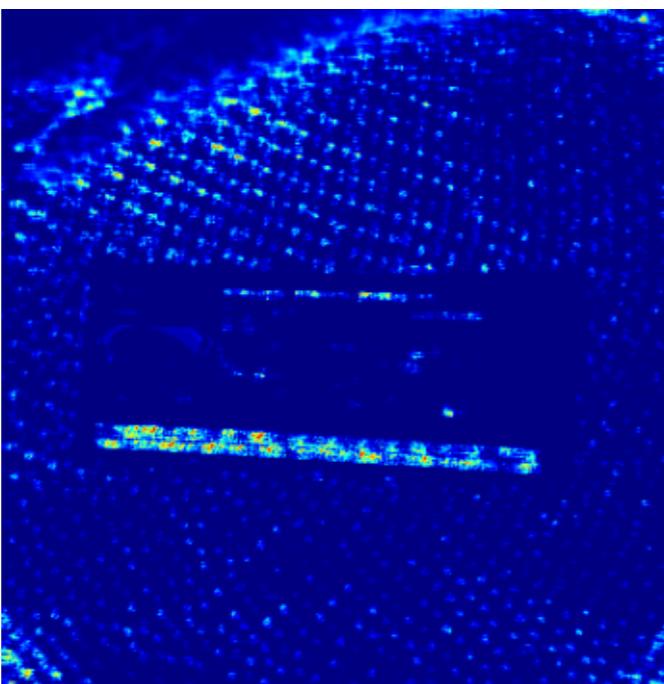
OBB Detection
IoU: 0.310



Original
lva_passport (clips)



Probability Heatmap



Mask Overlay



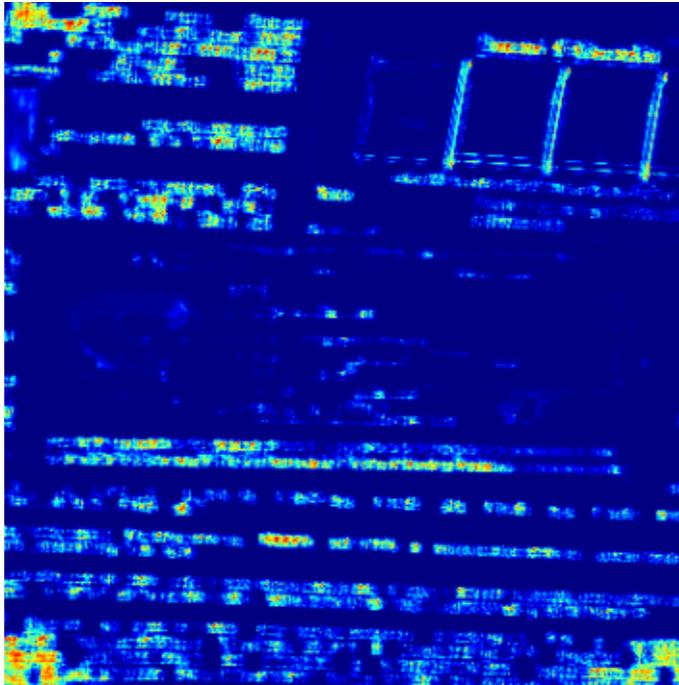
OBB Detection
IoU: 0.111



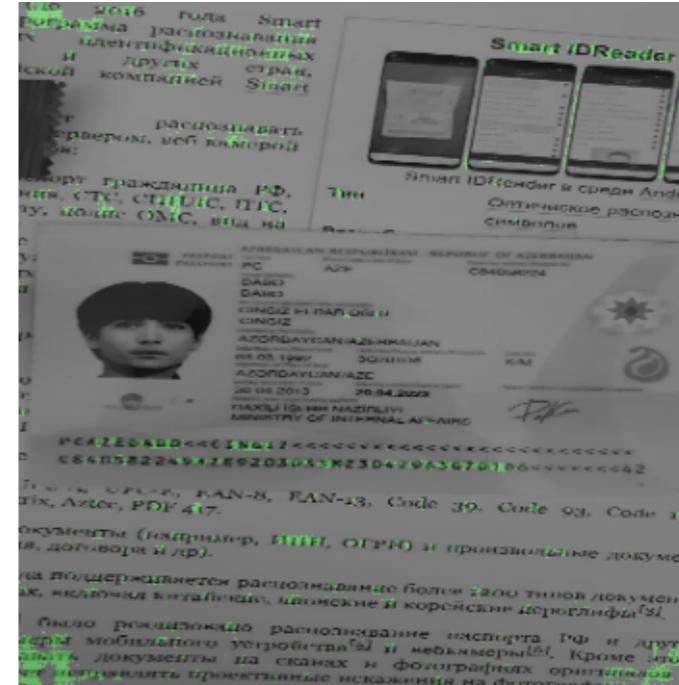
Original
aze_passport (clips)



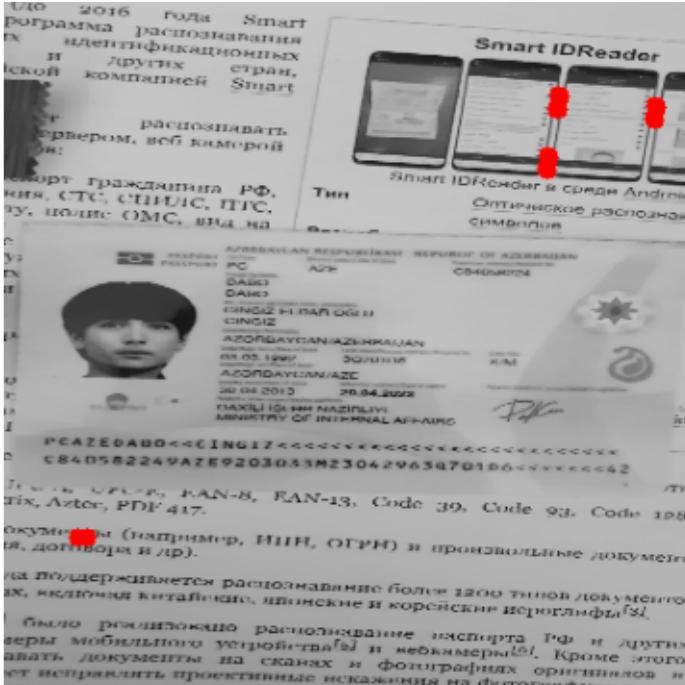
Probability Heatmap



Mask Overlay



OBB Detection
IoU: 0.060

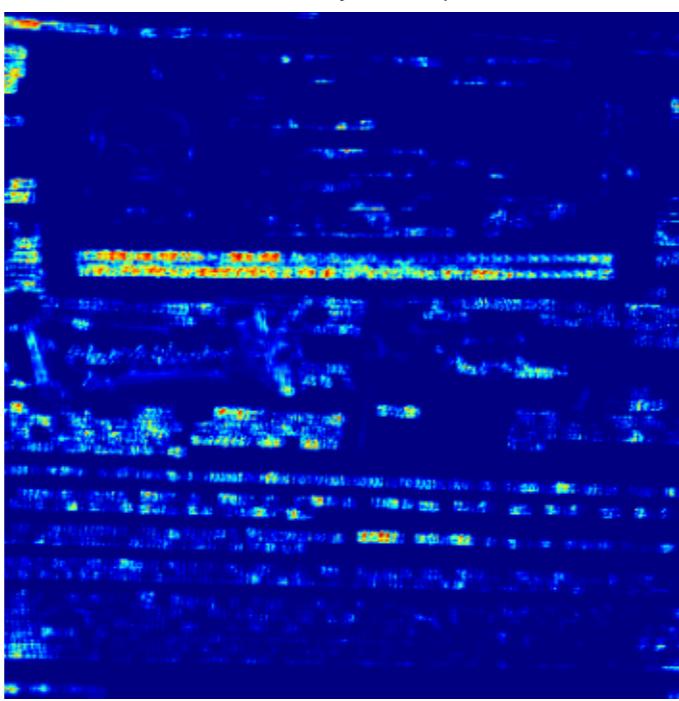


OBB Detection
IoU: 0.236

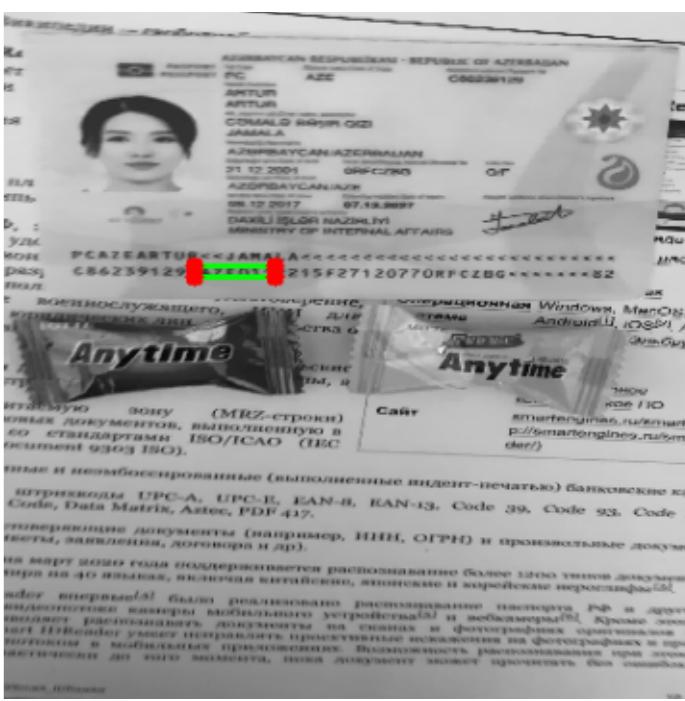
Original
aze_passport (clips)



Probability Heatmap



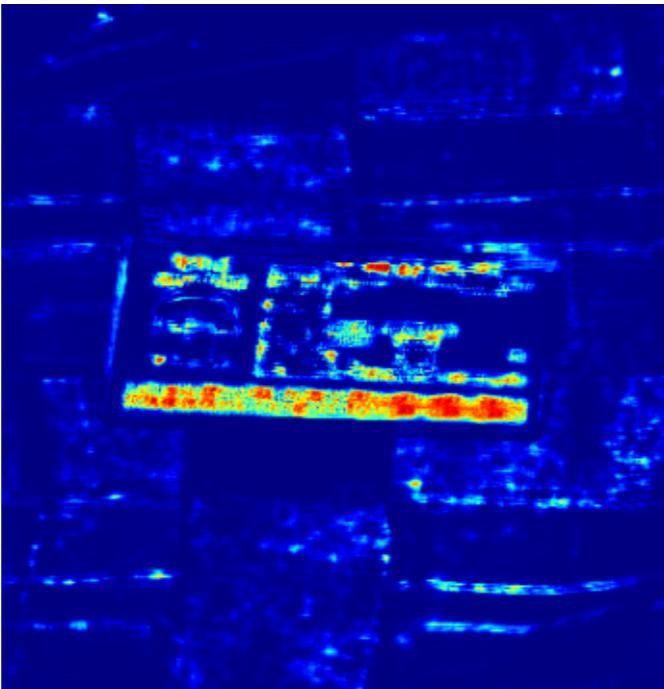
Mask Overlay



Original
grc_passport (clips)



Probability Heatmap



Mask Overlay



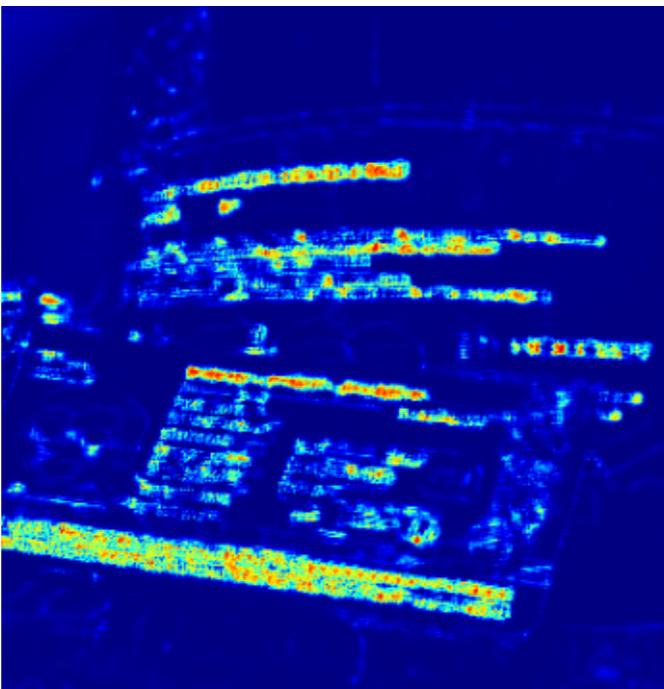
OBB Detection
IoU: 0.490



Original
lva_passport (clips)



Probability Heatmap



Mask Overlay



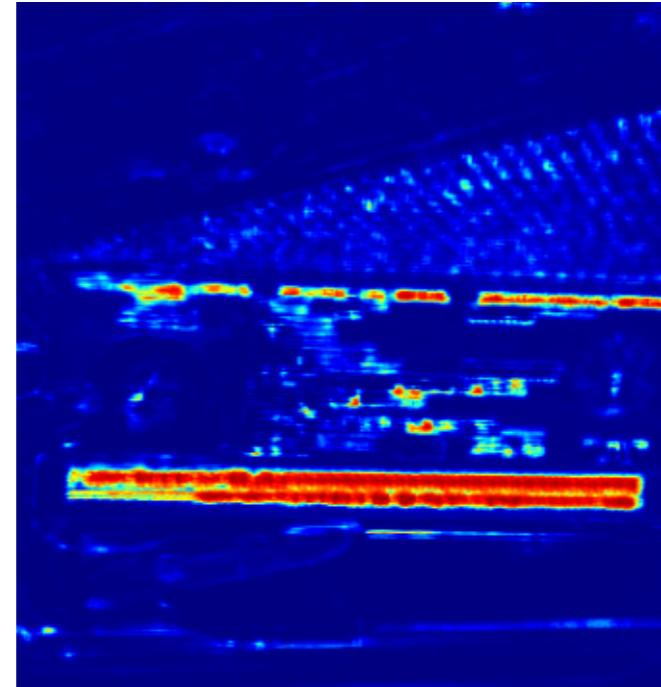
OBB Detection
IoU: 0.300



Original
41_srb_passport (unknown)



Probability Heatmap



Mask Overlay



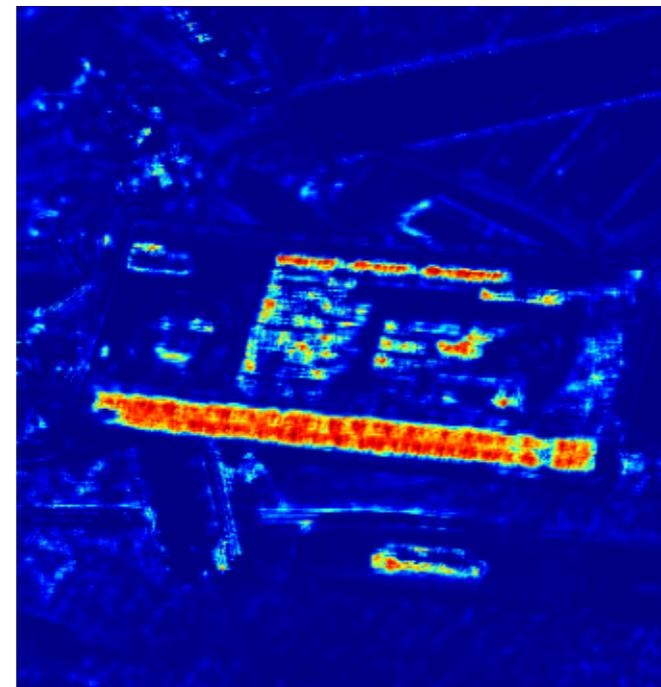
OBB Detection
IoU: 0.236



Original
32_lva_passport (unknown)



Probability Heatmap

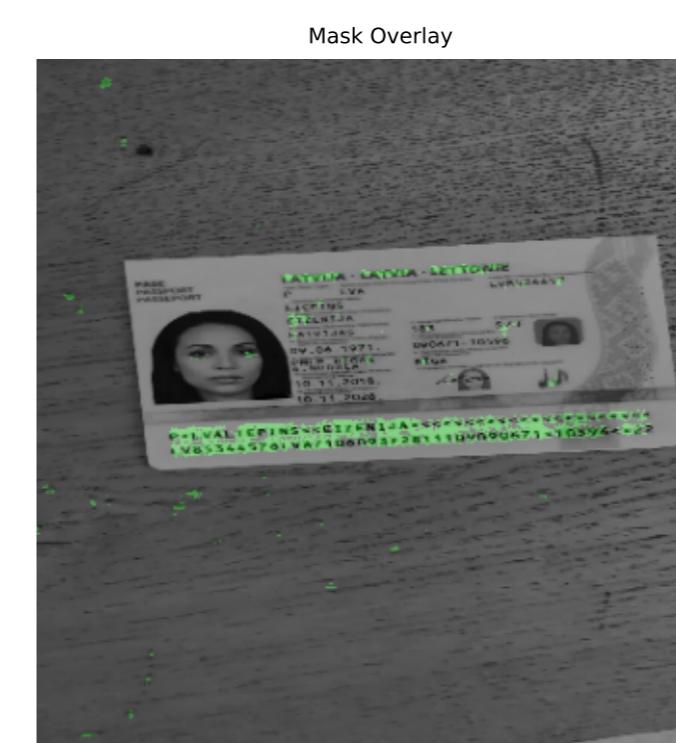
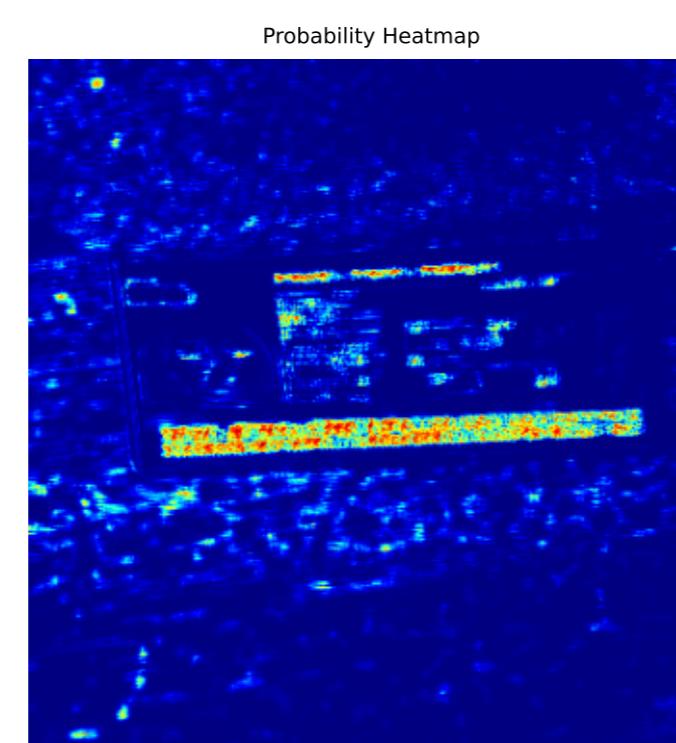
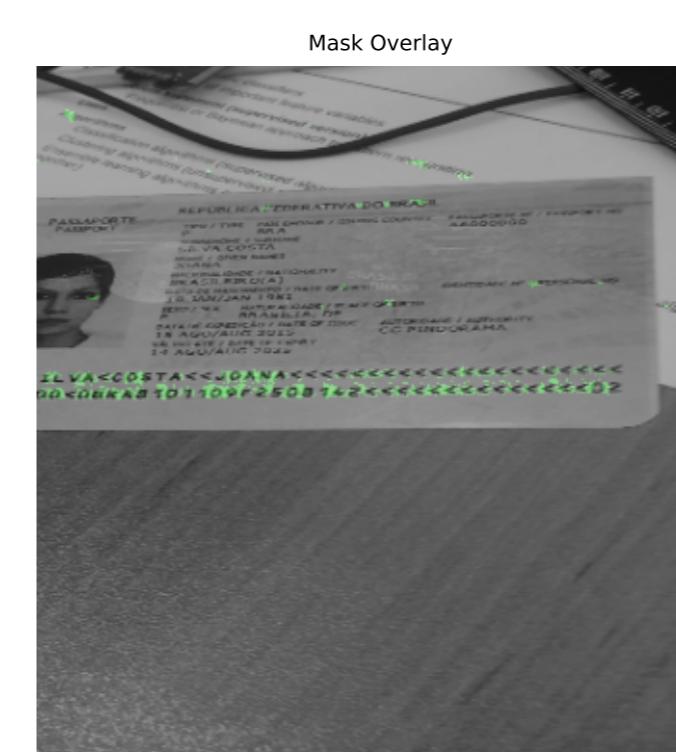
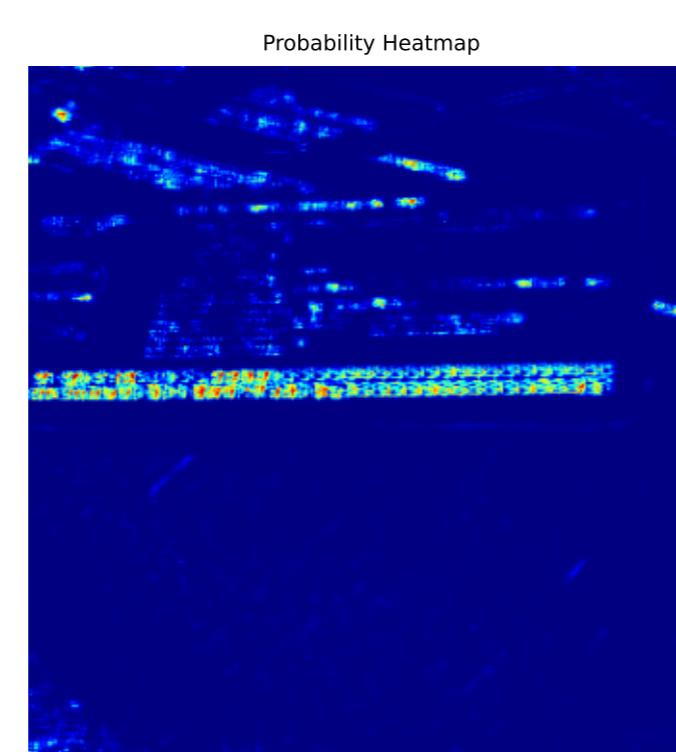


Mask Overlay



OBB Detection
IoU: 0.596

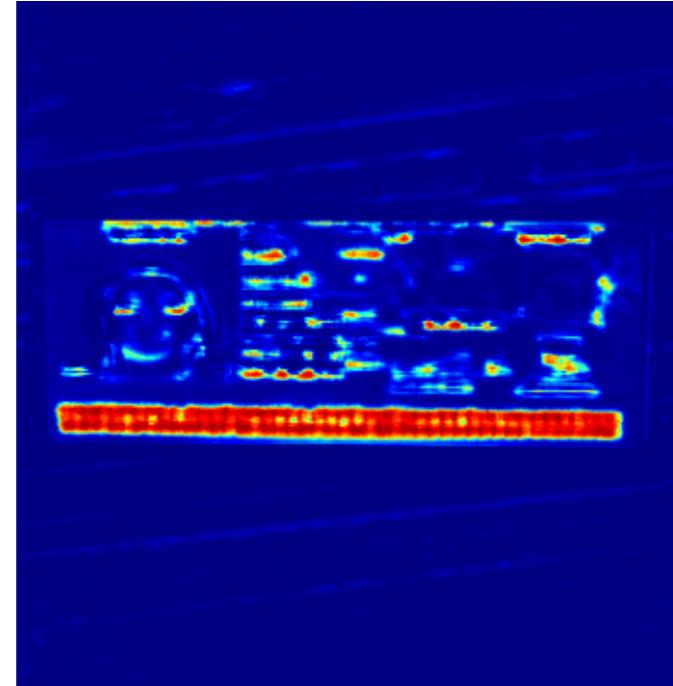




Original
46_ury_passport (unknown)



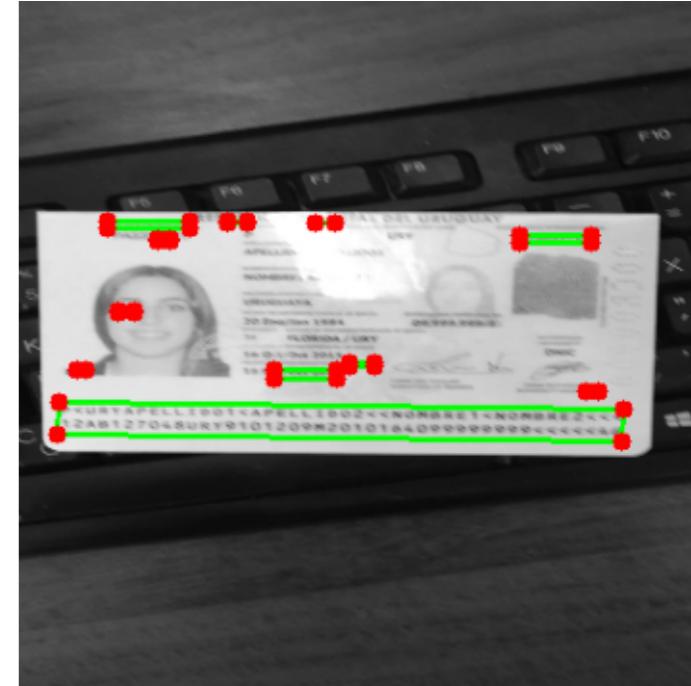
Probability Heatmap



Mask Overlay



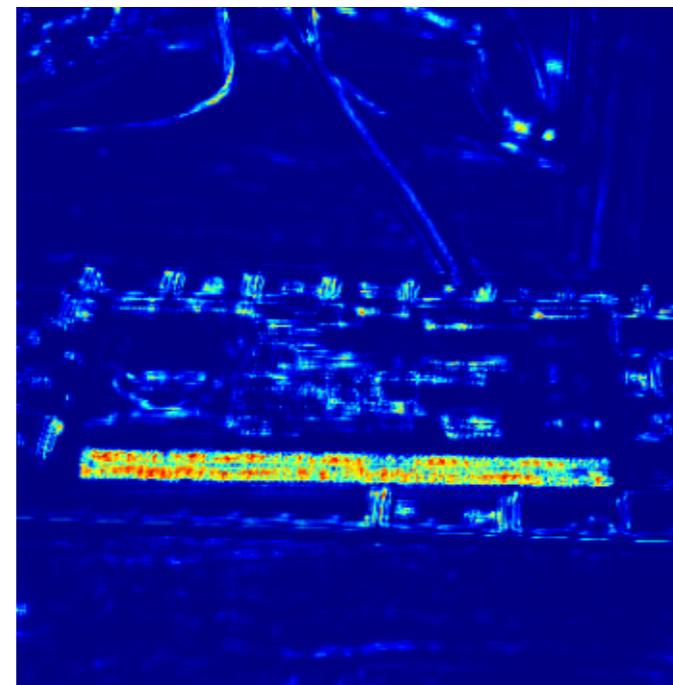
OBB Detection
IoU: 0.673



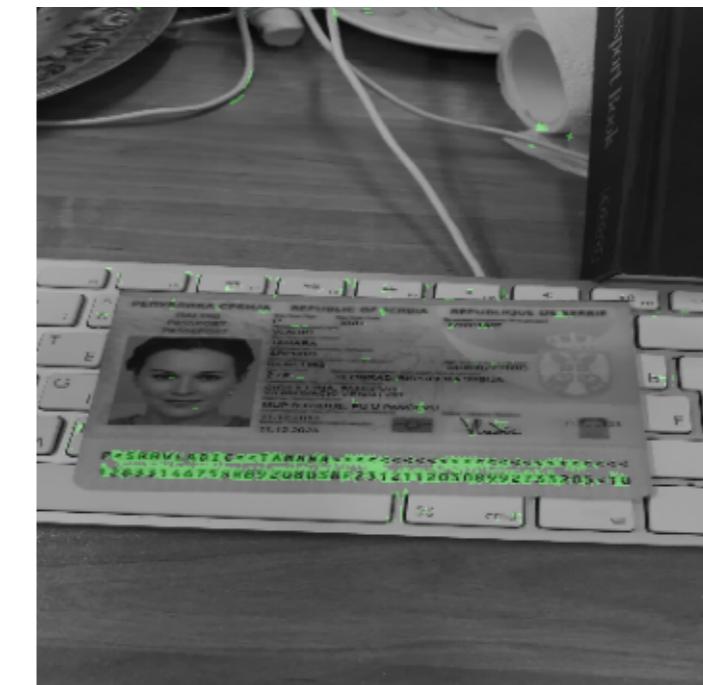
Original
srb_passport (clips)



Probability Heatmap



Mask Overlay



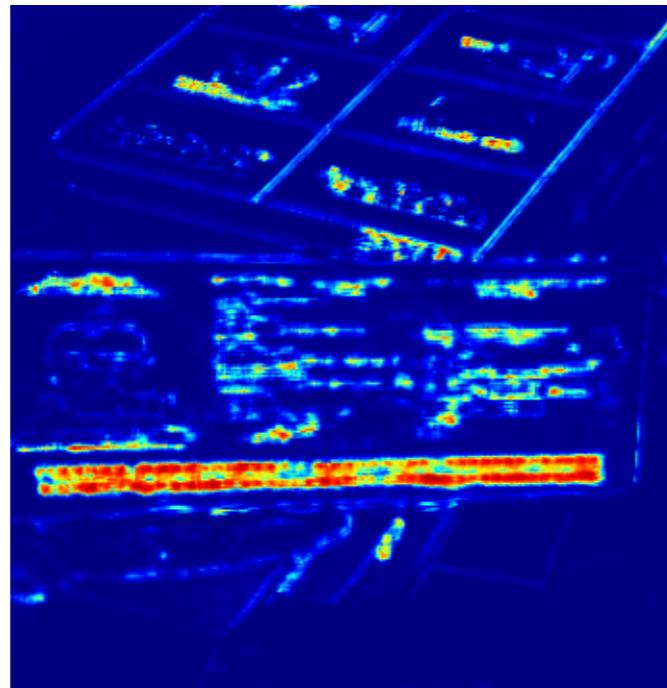
OBB Detection
IoU: 0.556



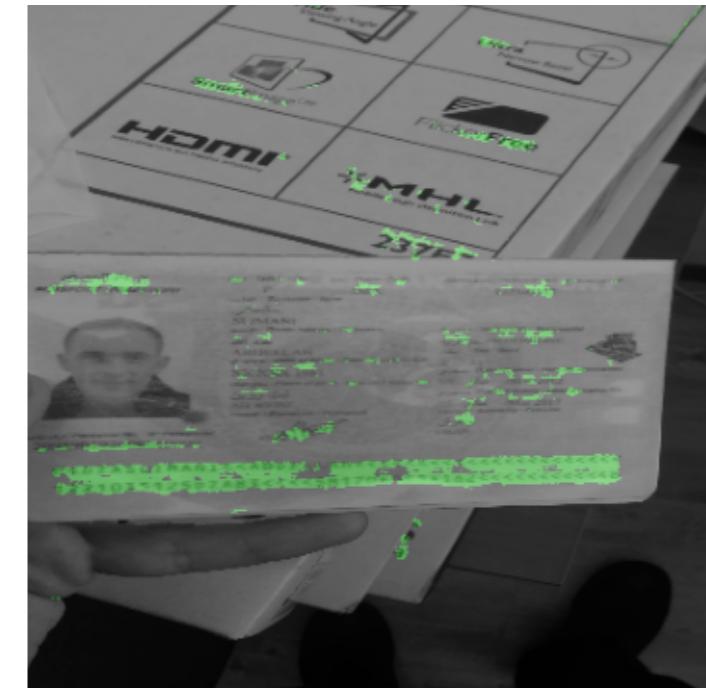
Original
18_dza_passport (unknown)



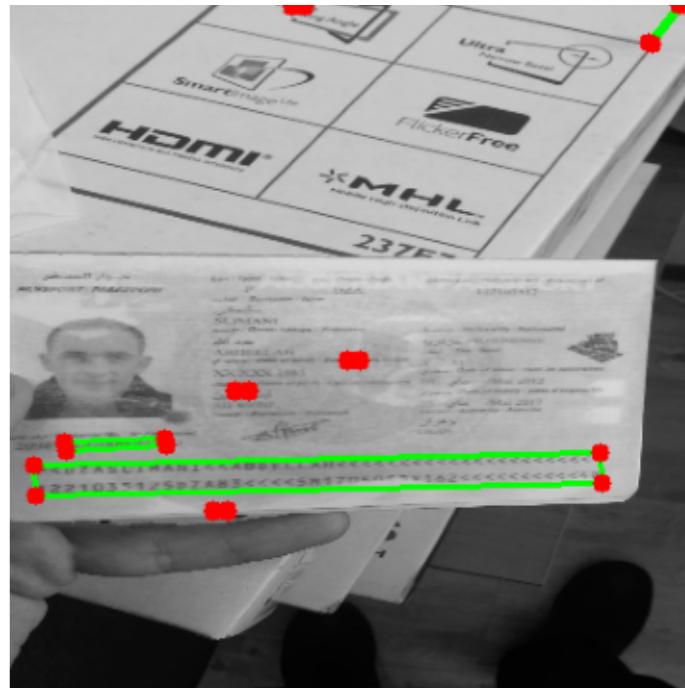
Probability Heatmap



Mask Overlay



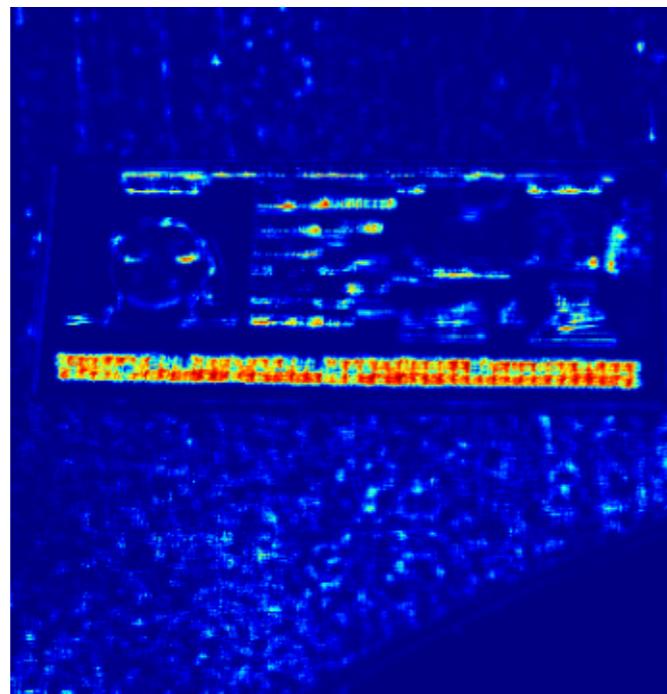
OBB Detection
IoU: 0.562



Original
46_ury_passport (unknown)



Probability Heatmap



Mask Overlay



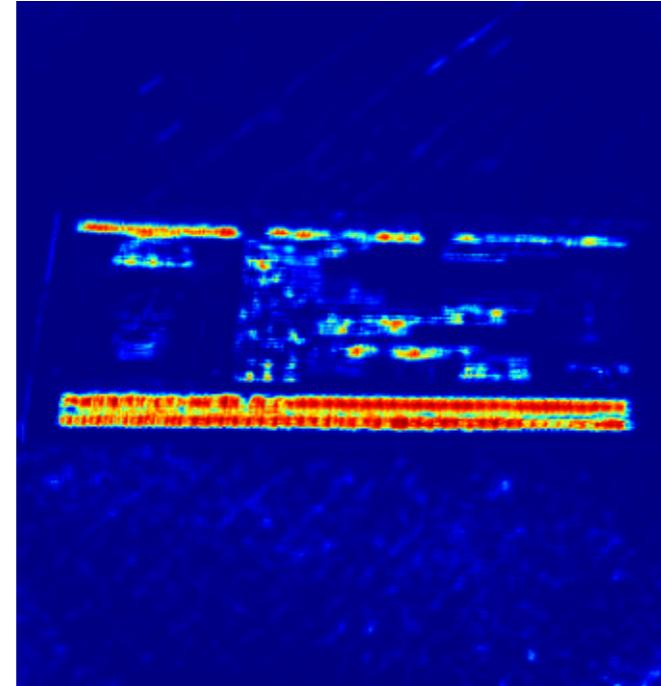
OBB Detection
IoU: 0.657



Original
41_srb_passport (unknown)



Probability Heatmap



Mask Overlay



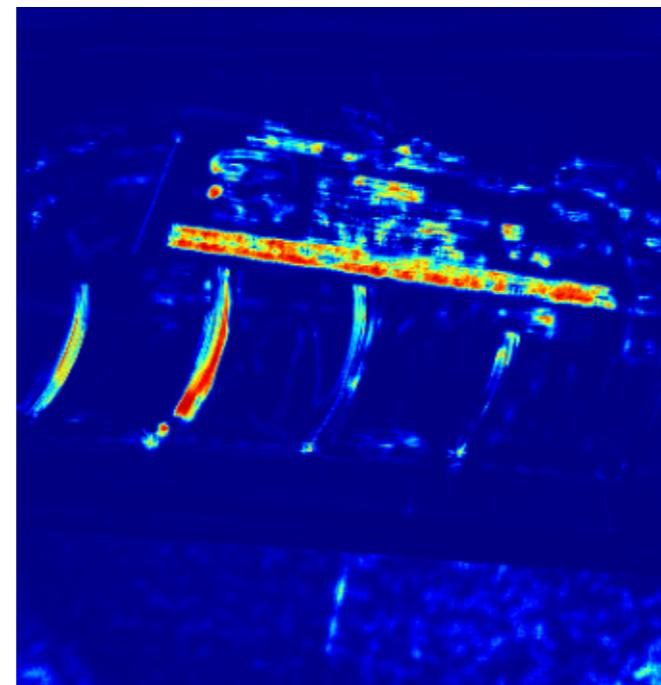
OBB Detection
IoU: 0.268



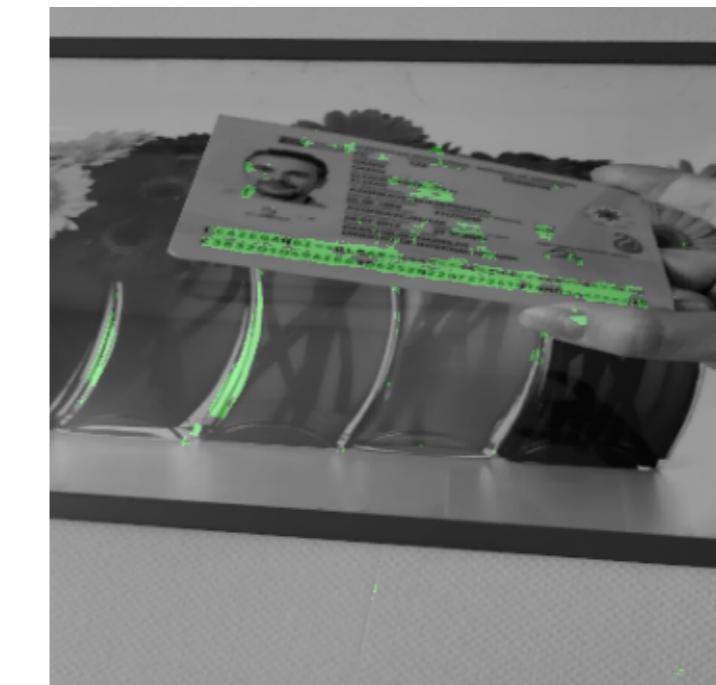
Original
aze_passport (clips)



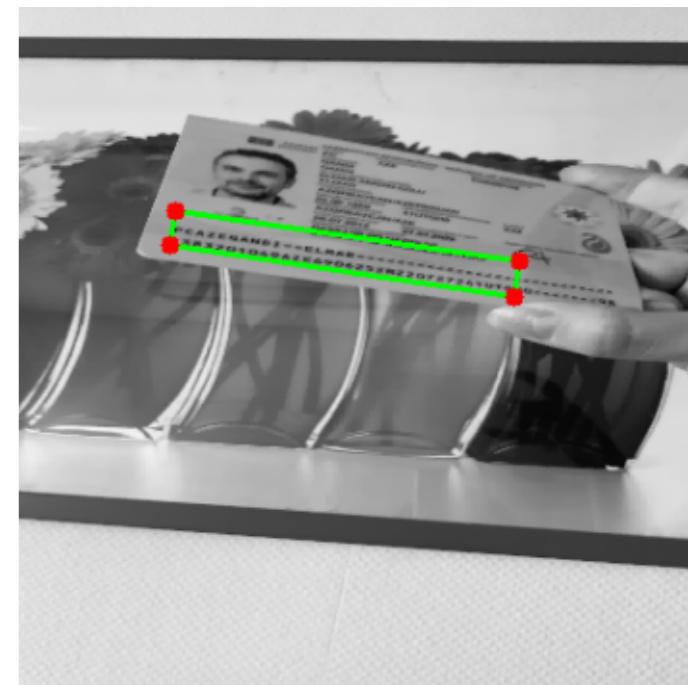
Probability Heatmap



Mask Overlay



OBB Detection
IoU: 0.402



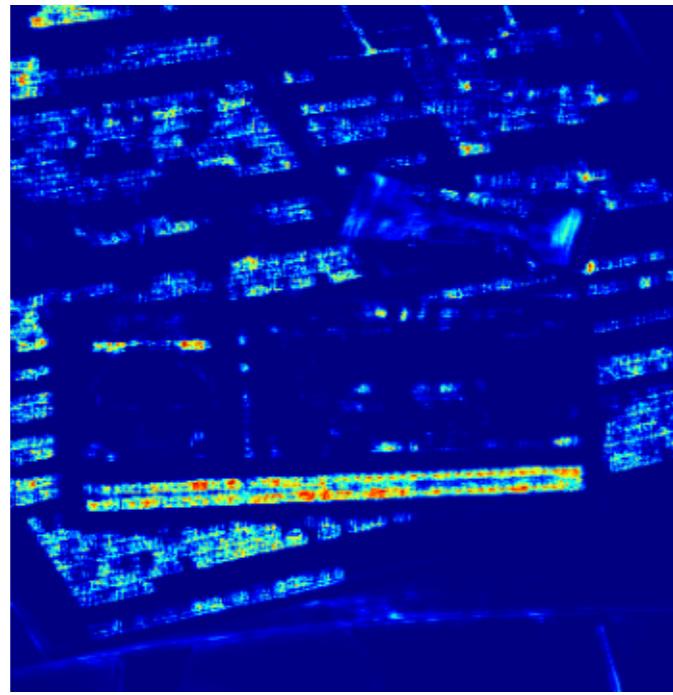
Original
grc_passport (clips)



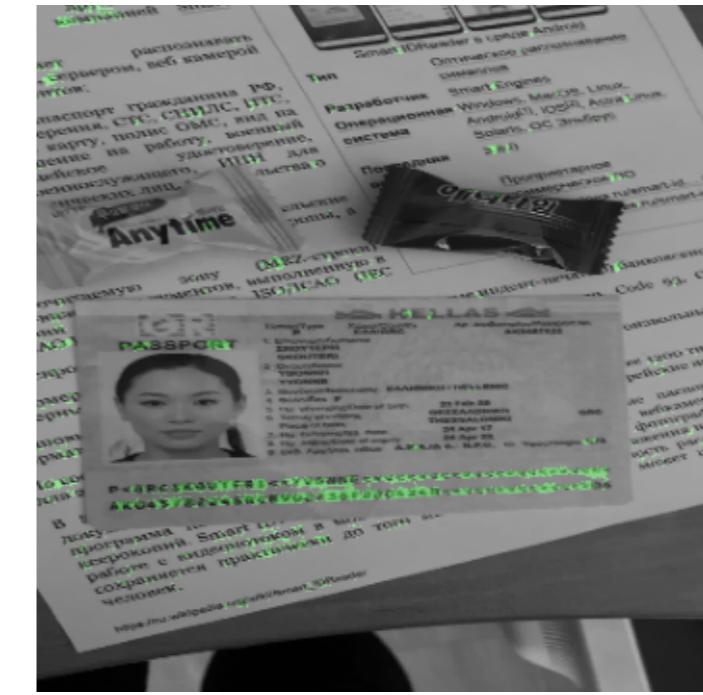
Original
32_lva_passport (unknown)



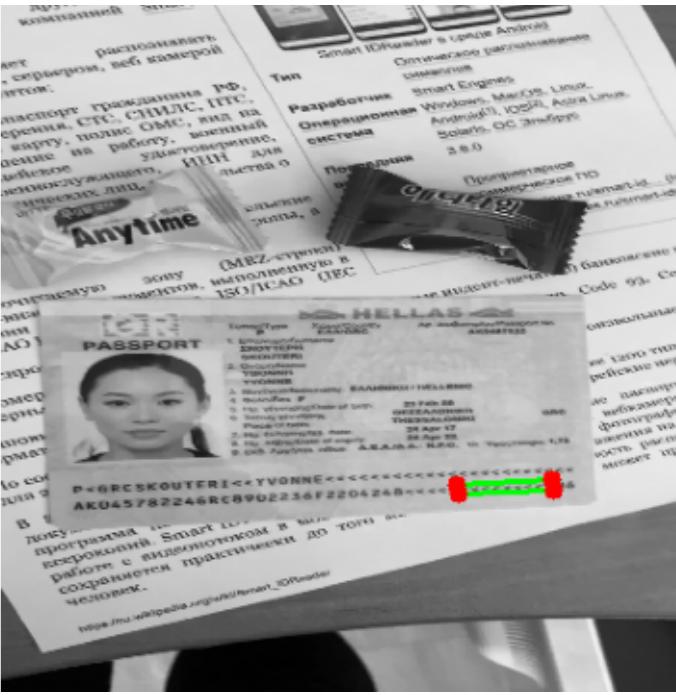
Probability Heatmap



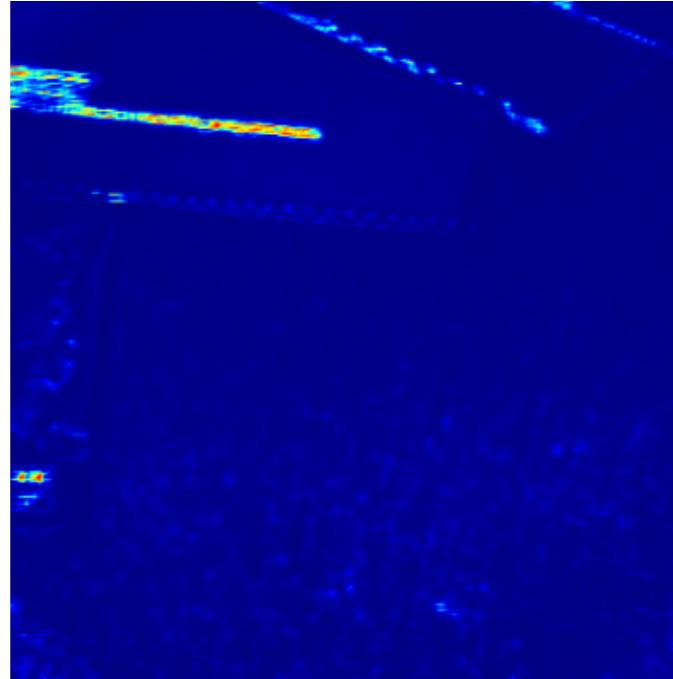
Mask Overlay



OBB Detection
IoU: 0.318



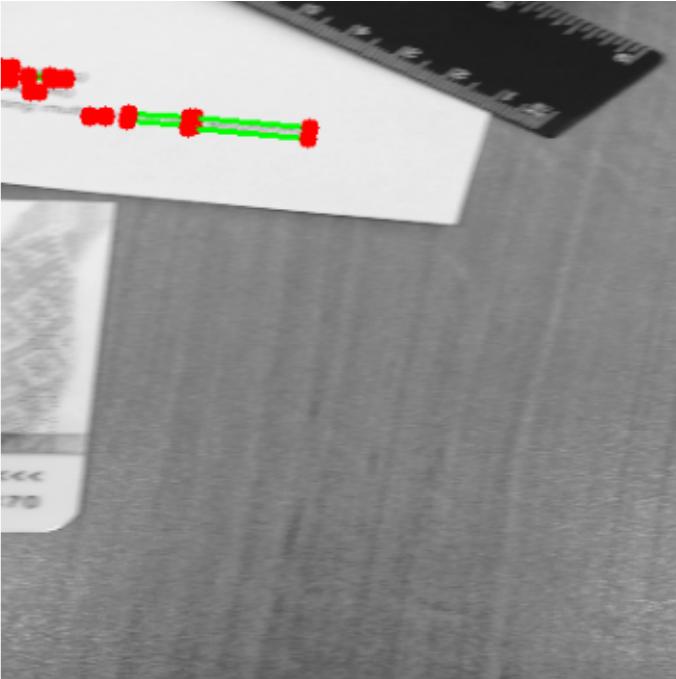
Probability Heatmap



Mask Overlay



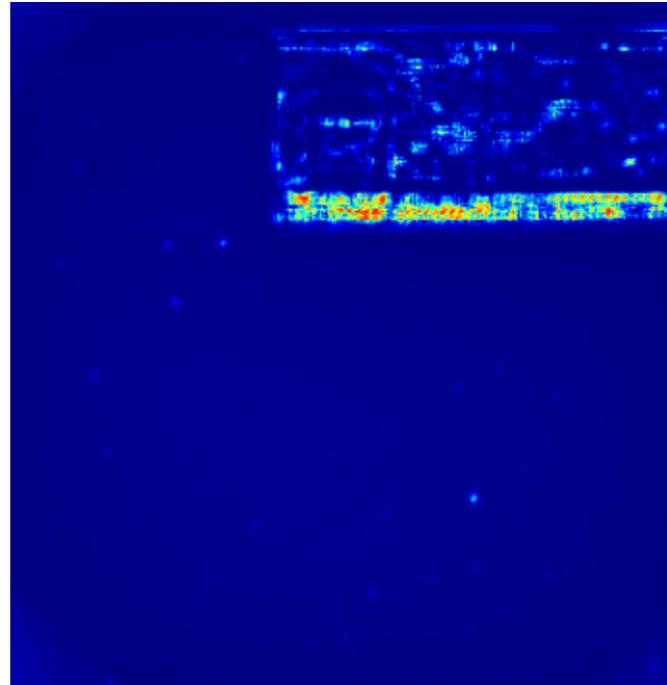
OBB Detection
IoU: 0.039



Original
srb_passport (scan_upright)



Probability Heatmap



Mask Overlay



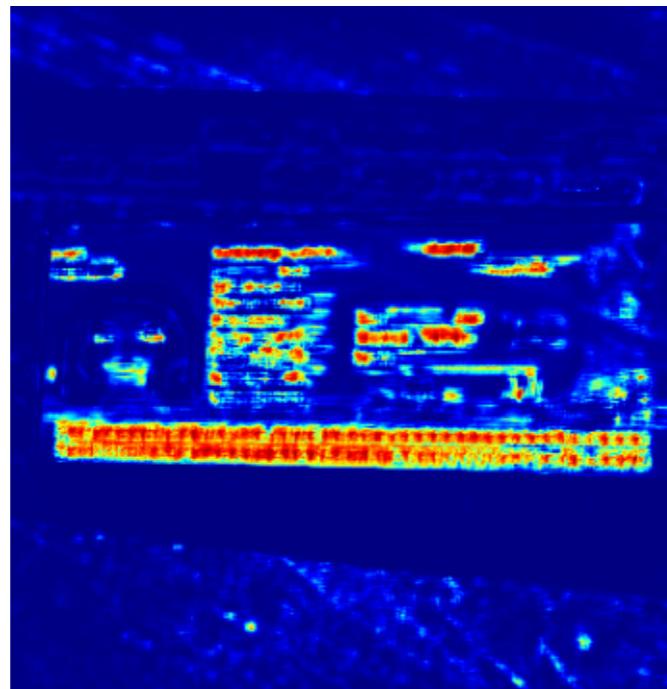
OBB Detection
IoU: 0.353



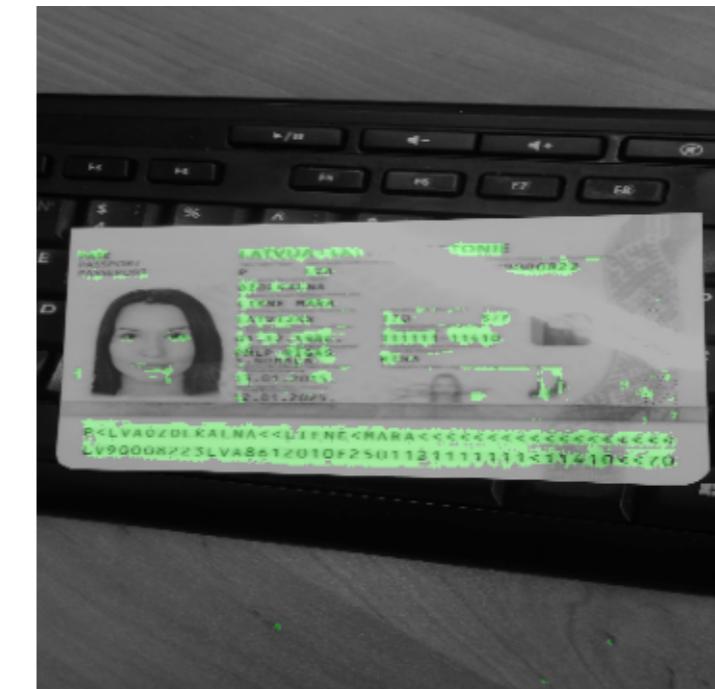
Original
32_lva_passport (unknown)



Probability Heatmap



Mask Overlay



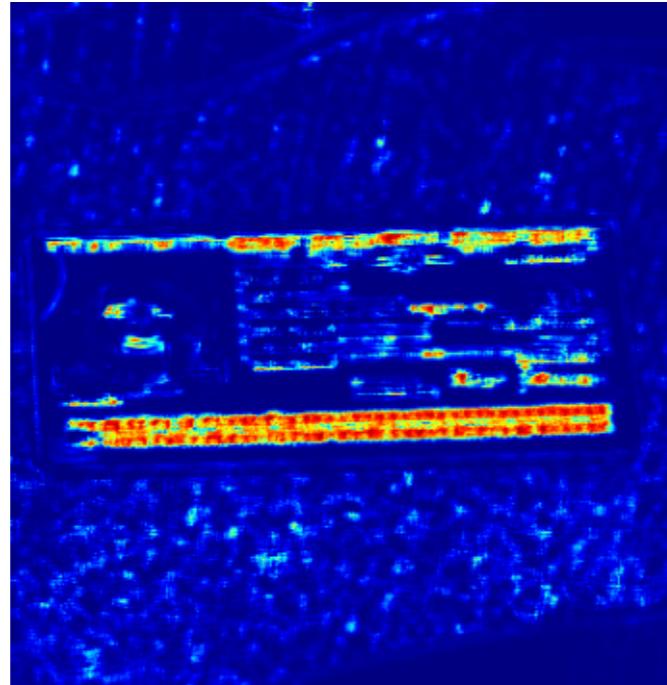
OBB Detection
IoU: 0.517



Original
11_cze_passport (unknown)



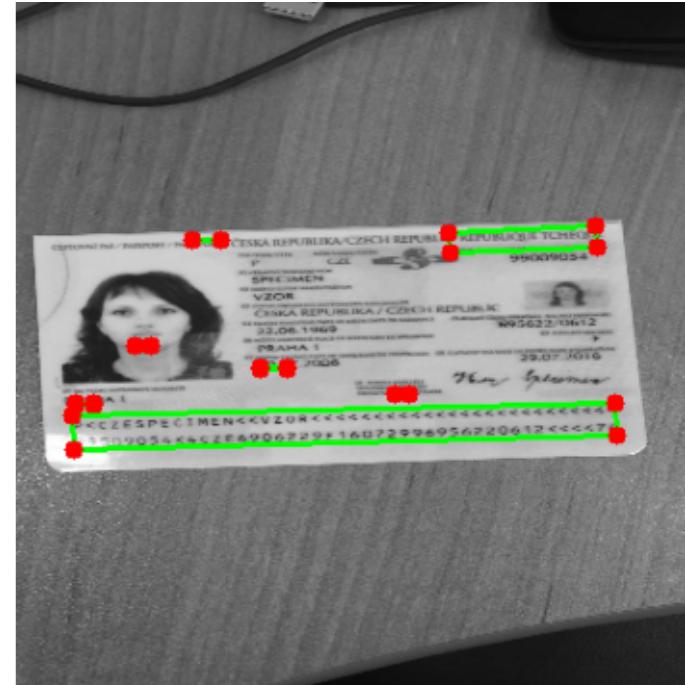
Probability Heatmap



Mask Overlay



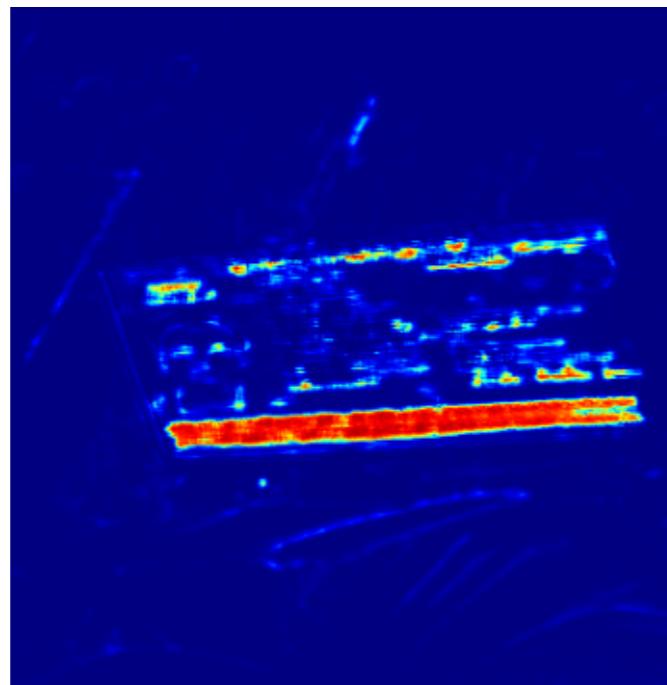
OBB Detection
IoU: 0.594



Original
28_hun_passport (unknown)



Probability Heatmap



Mask Overlay



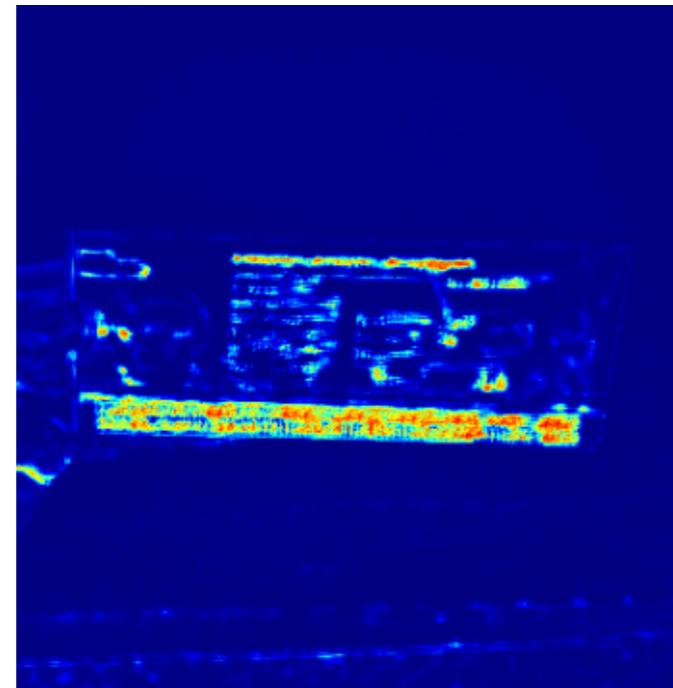
OBB Detection
IoU: 0.697



Original
Iva_passport (photo)



Probability Heatmap



Mask Overlay



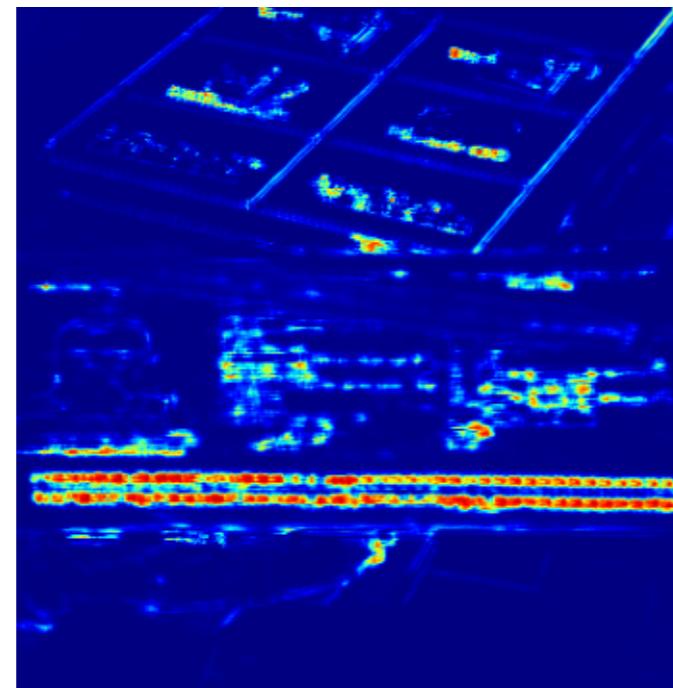
OBB Detection
IoU: 0.432



Original
18_dza_passport (unknown)



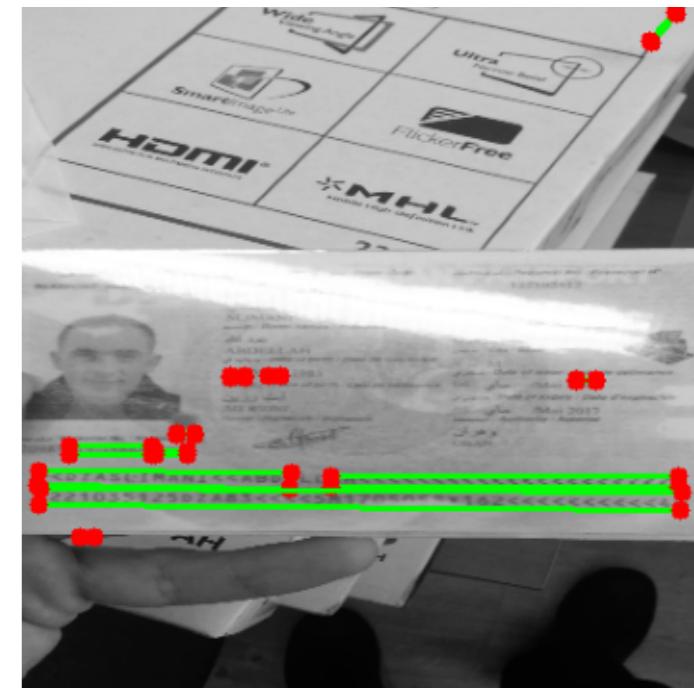
Probability Heatmap



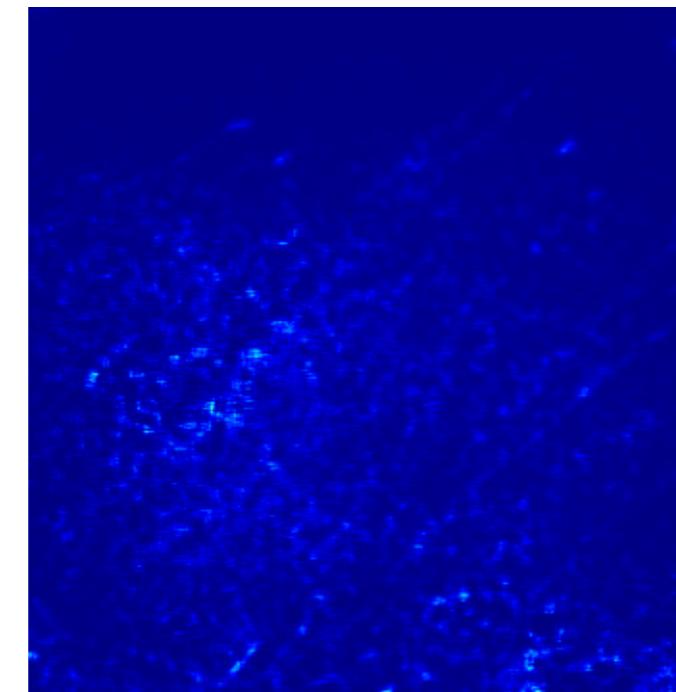
Mask Overlay



OBB Detection
IoU: 0.395

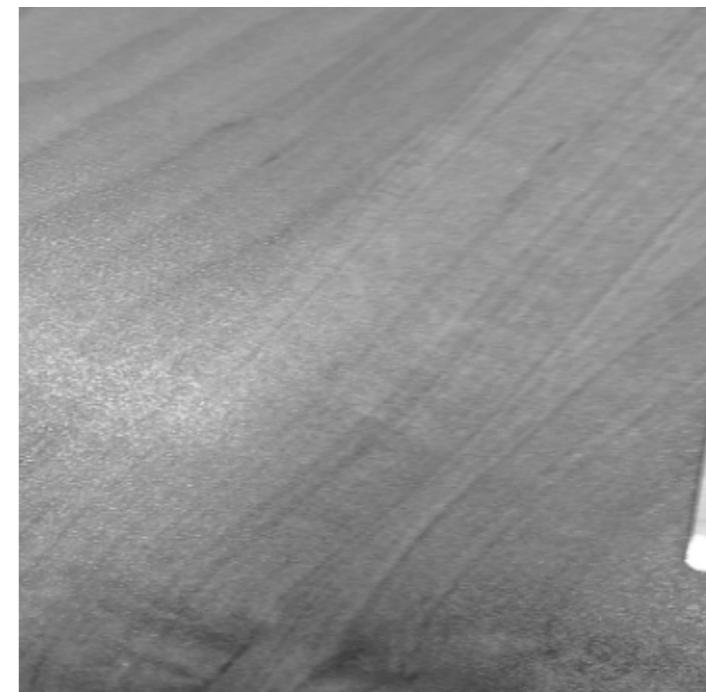


Original
17_deu_passport_old (unknown)



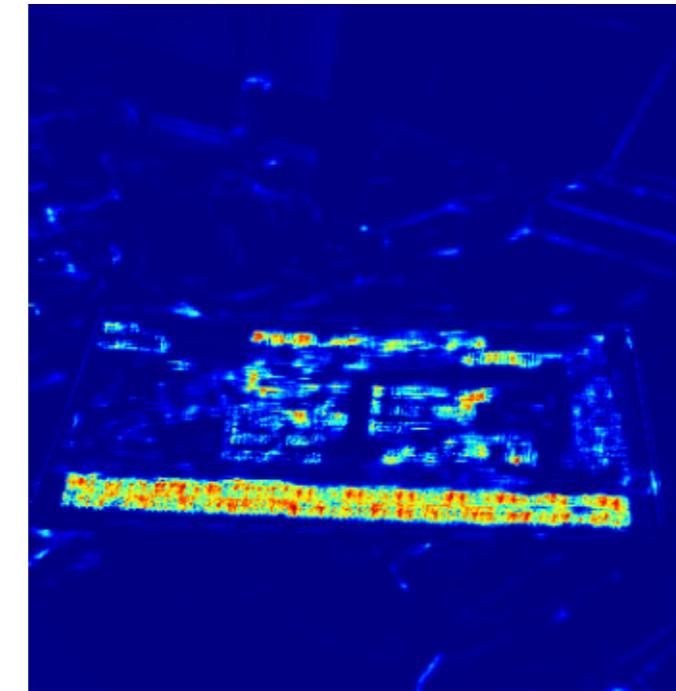
Probability Heatmap

Mask Overlay



OBB Detection
IoU: 0.000

Original
lva_passport (clips)



Probability Heatmap

Mask Overlay

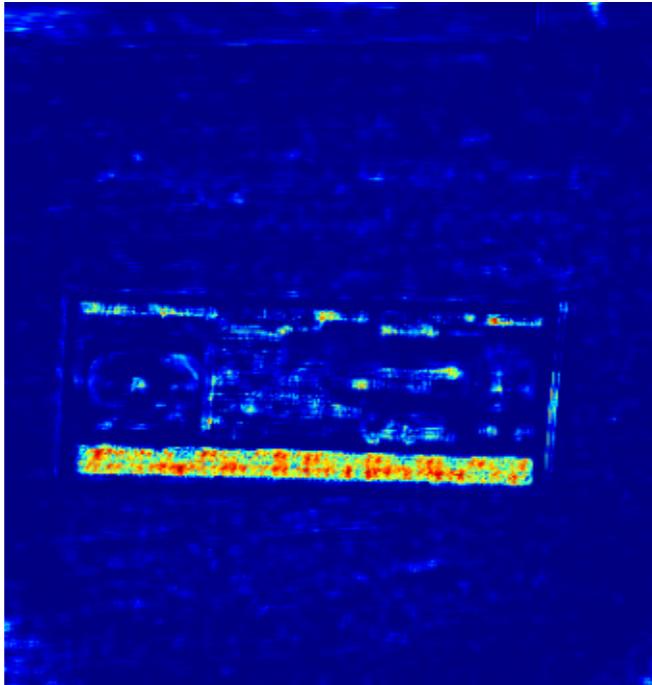


OBB Detection
IoU: 0.577

Original
srb_passport (clips)



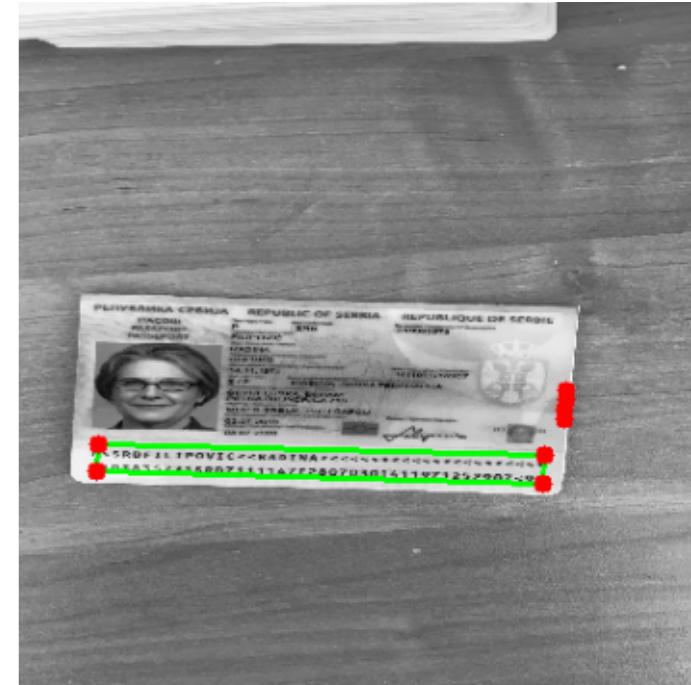
Probability Heatmap



Mask Overlay



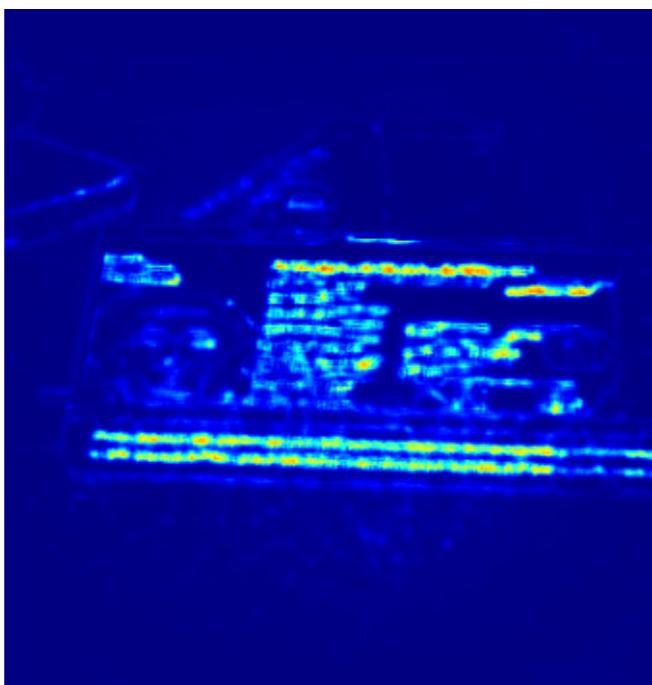
OBB Detection
IoU: 0.621



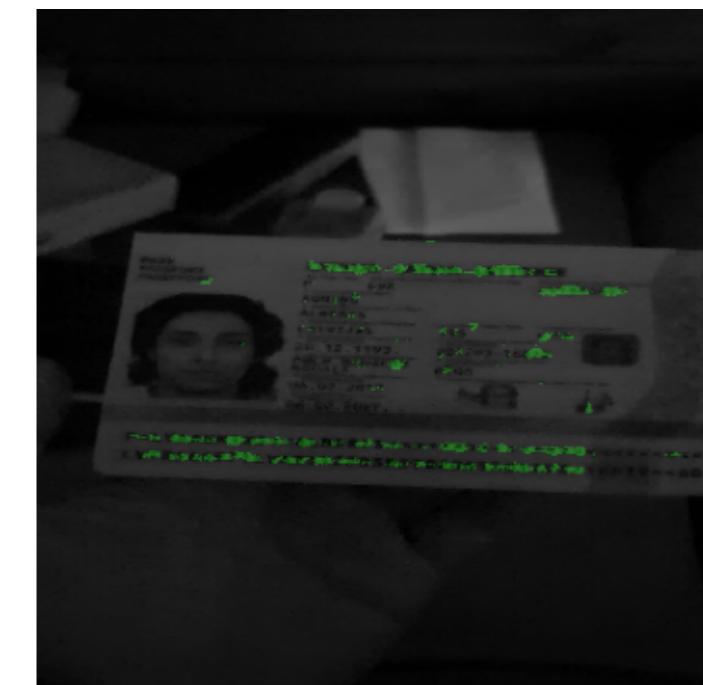
Original
lva_passport (clips)



Probability Heatmap



Mask Overlay



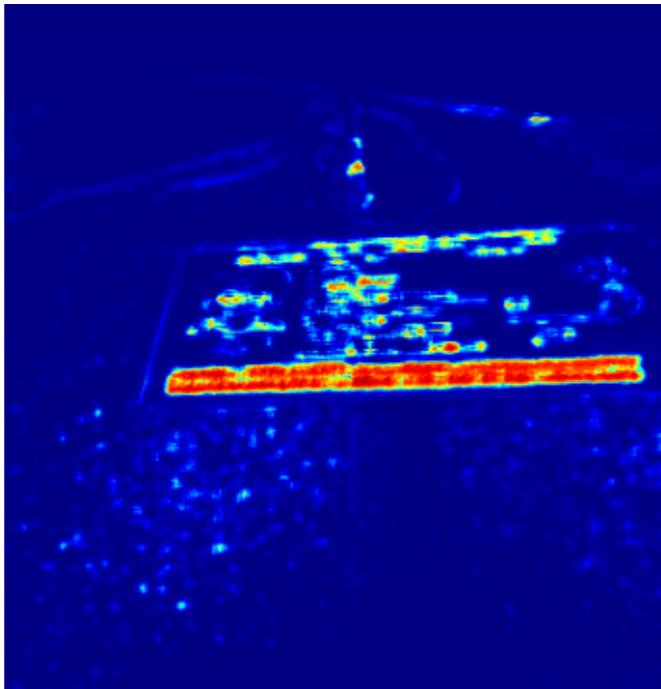
OBB Detection
IoU: 0.160



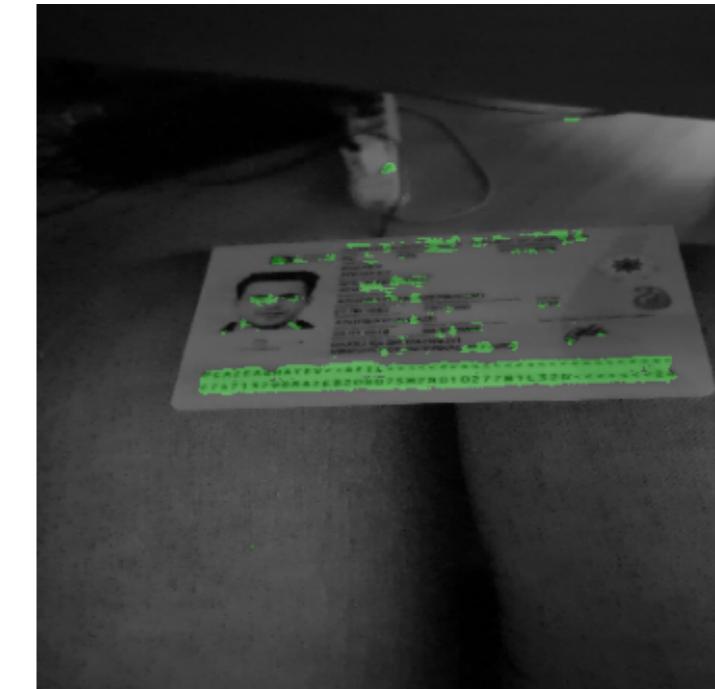
Original
aze_passport (clips)



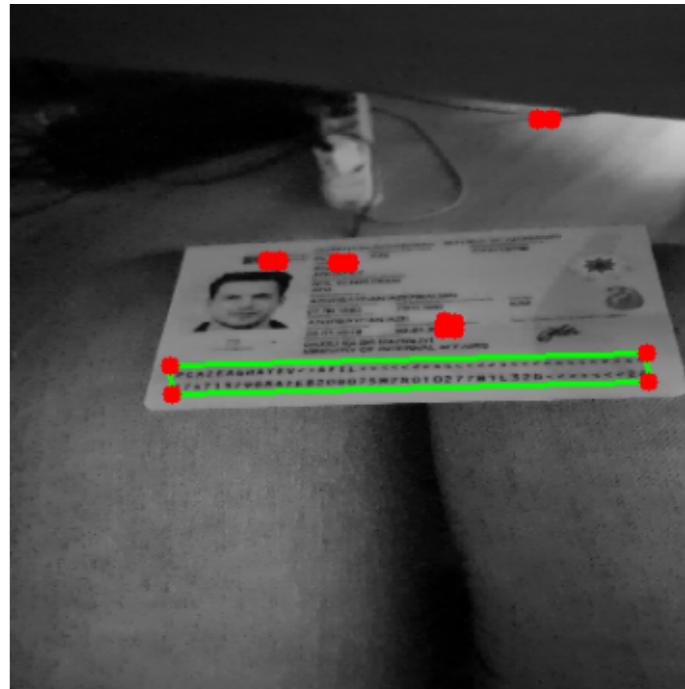
Probability Heatmap



Mask Overlay



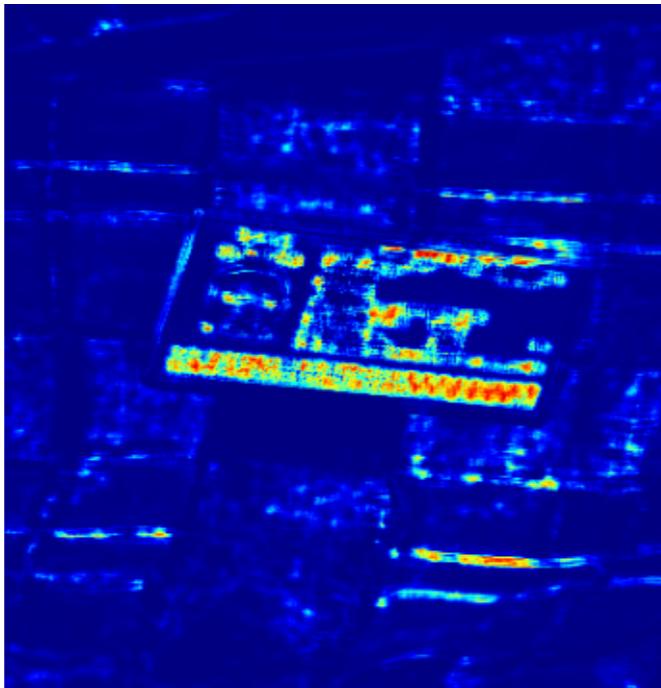
OBB Detection
IoU: 0.588



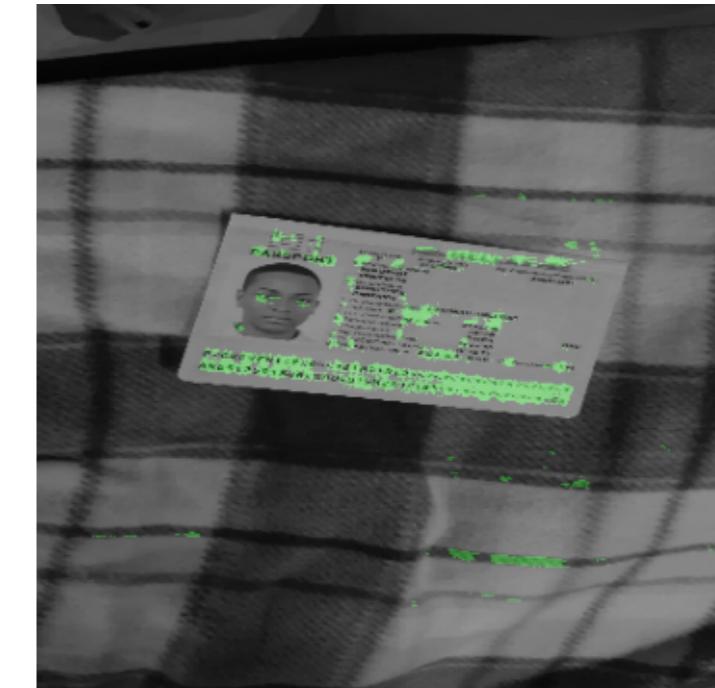
Original
grc_passport (clips)



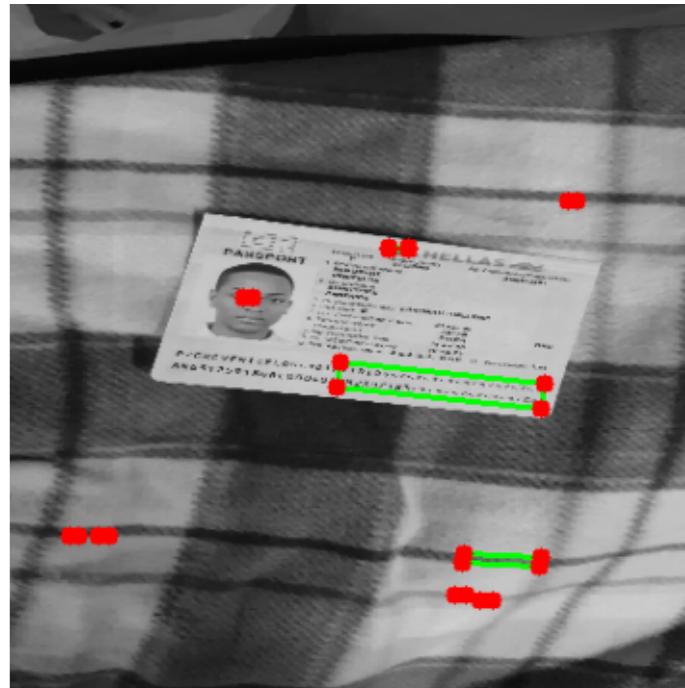
Probability Heatmap



Mask Overlay



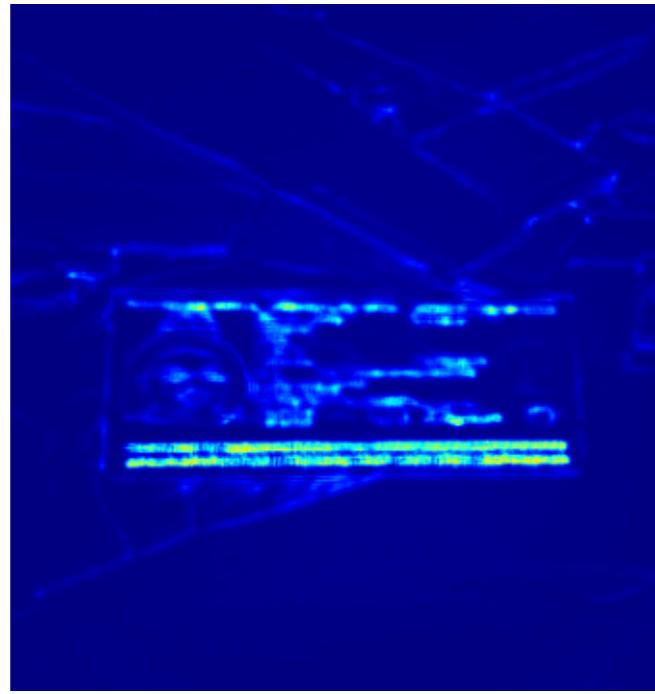
OBB Detection
IoU: 0.363



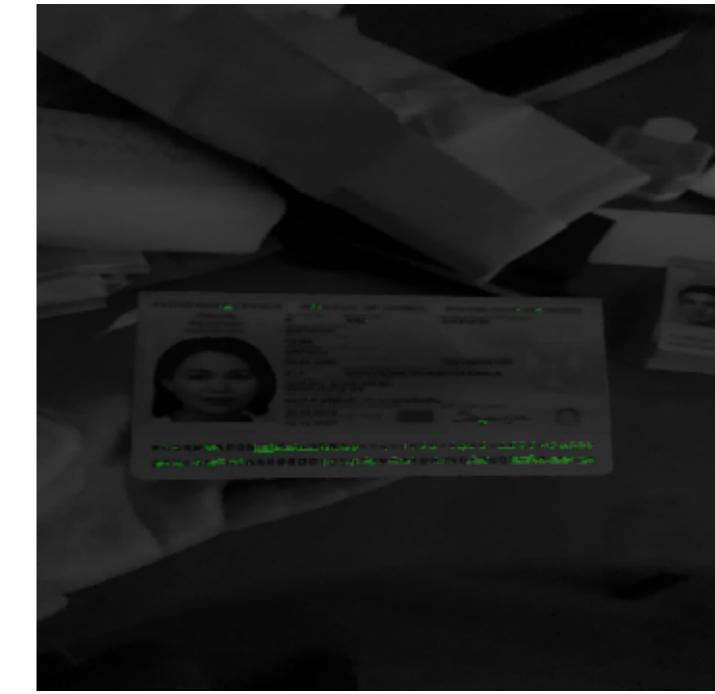
Original
srb_passport (clips)



Probability Heatmap



Mask Overlay



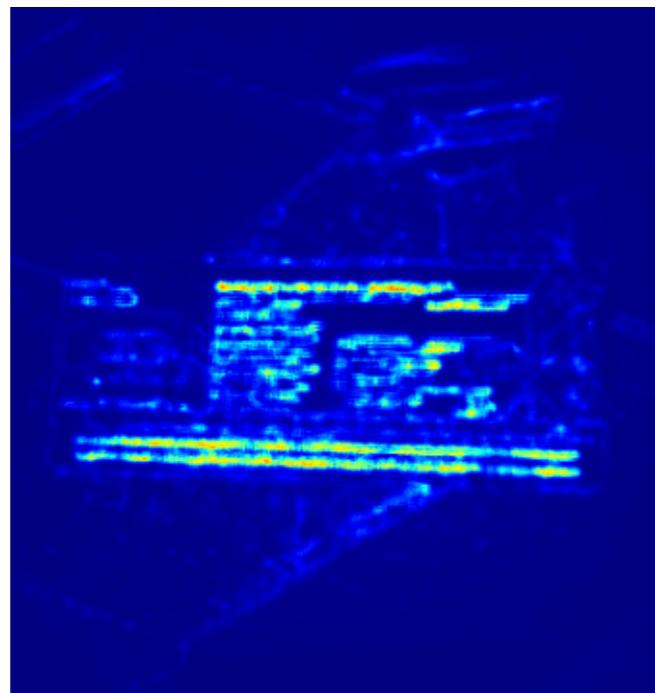
OBB Detection
IoU: 0.174



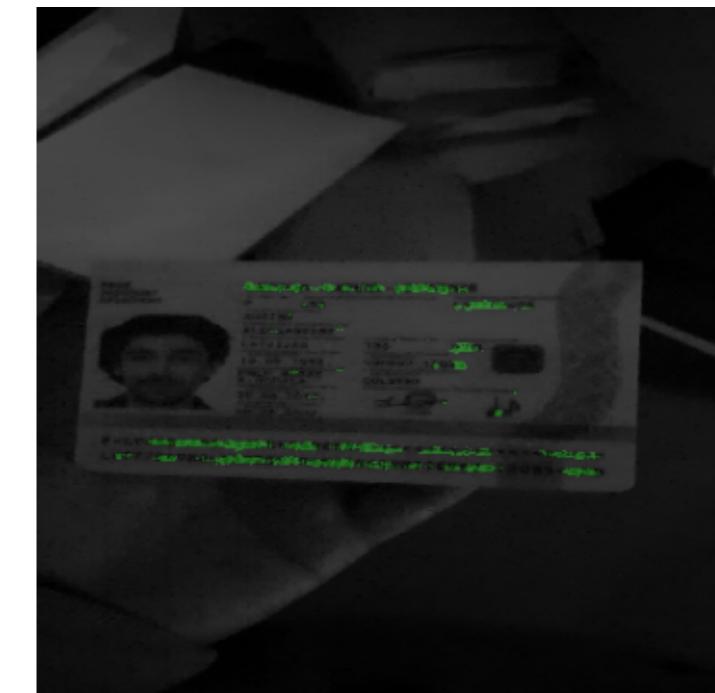
Original
lva_passport (clips)



Probability Heatmap



Mask Overlay



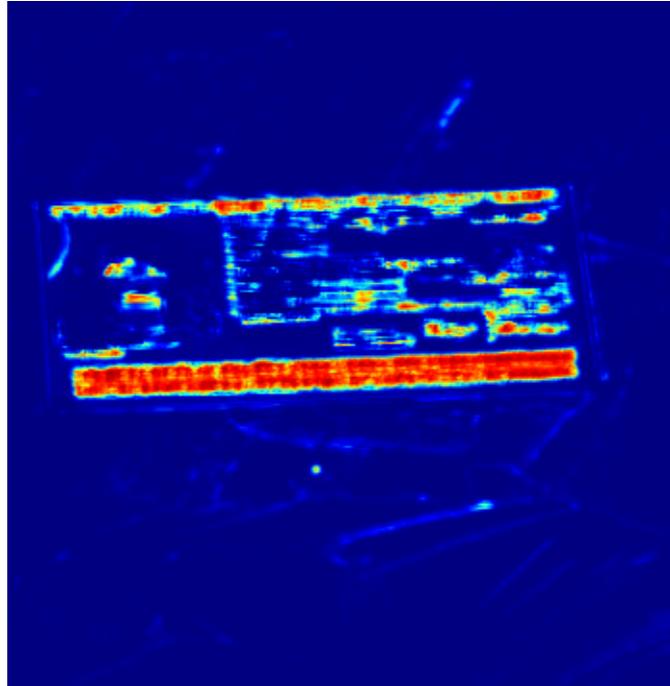
OBB Detection
IoU: 0.246



Original
11_cze_passport (unknown)



Probability Heatmap



Mask Overlay



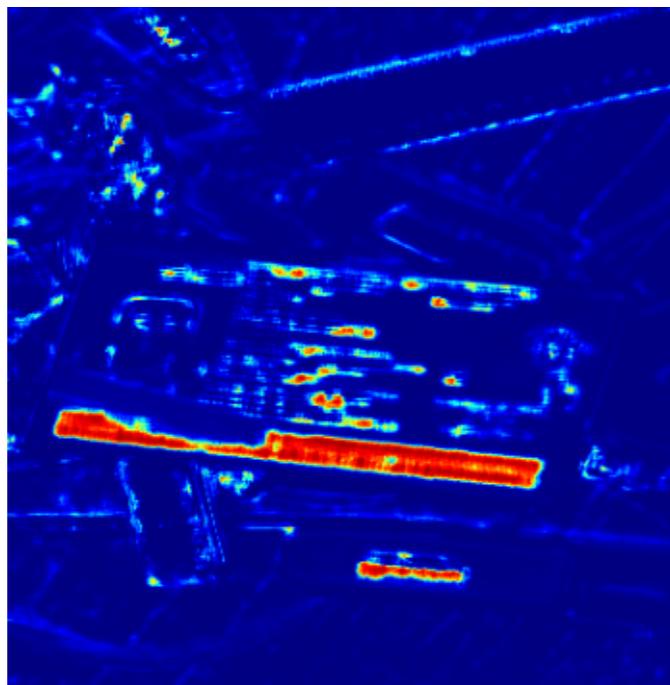
OBB Detection
IoU: 0.576



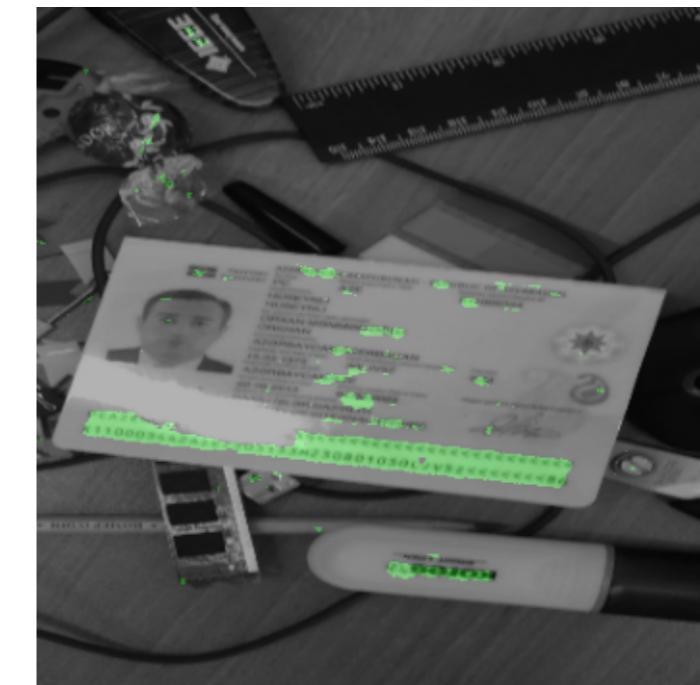
Original
05_aze_passport (unknown)



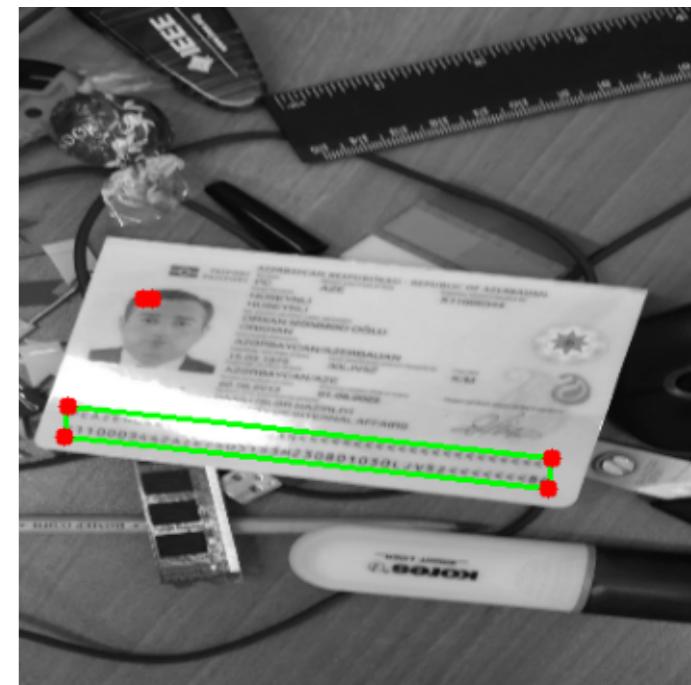
Probability Heatmap



Mask Overlay



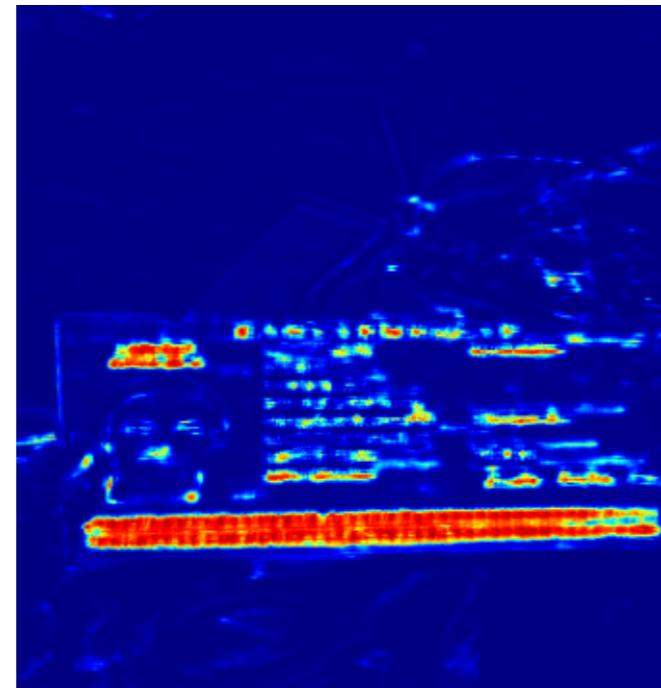
OBB Detection
IoU: 0.566



Original
28_hun_passport (unknown)



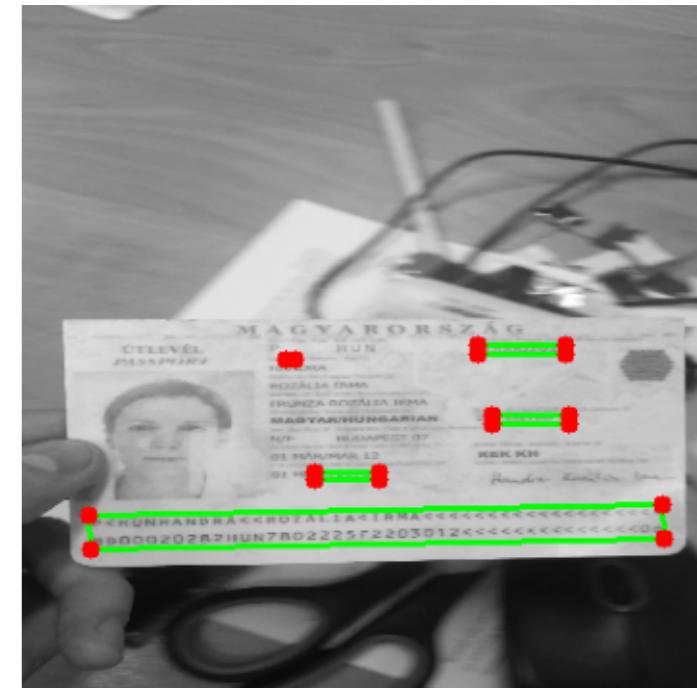
Probability Heatmap



Mask Overlay



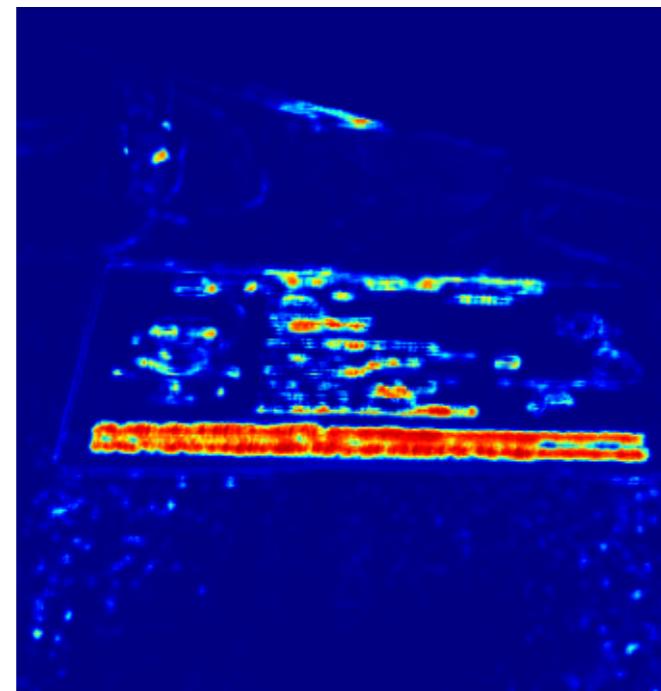
OBB Detection
IoU: 0.615



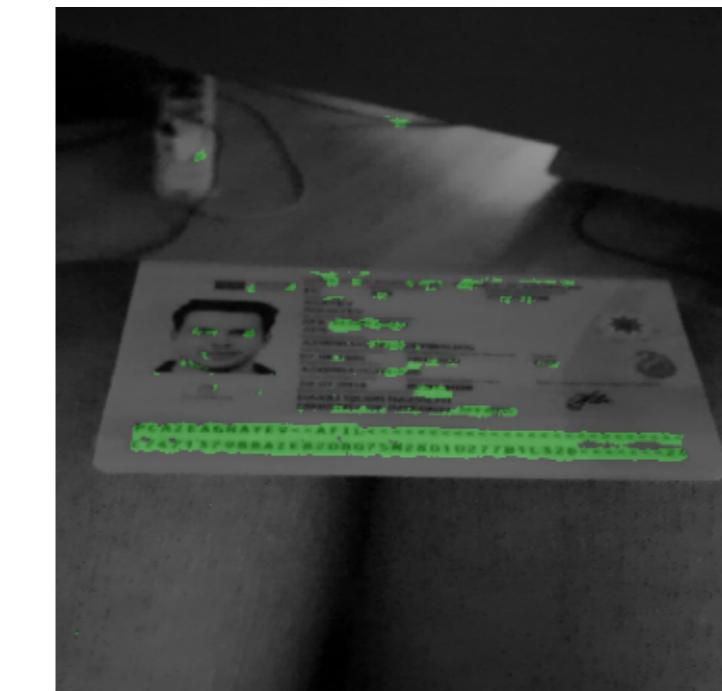
Original
aze_passport (clips)



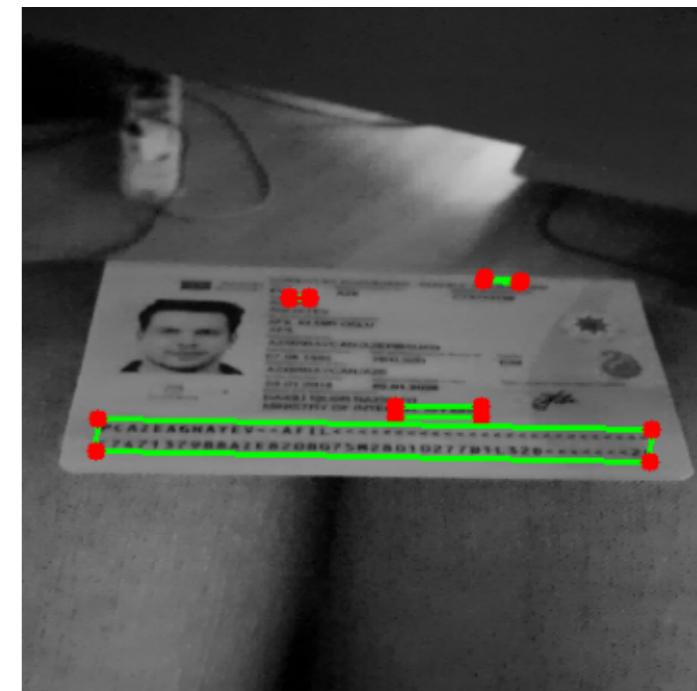
Probability Heatmap



Mask Overlay



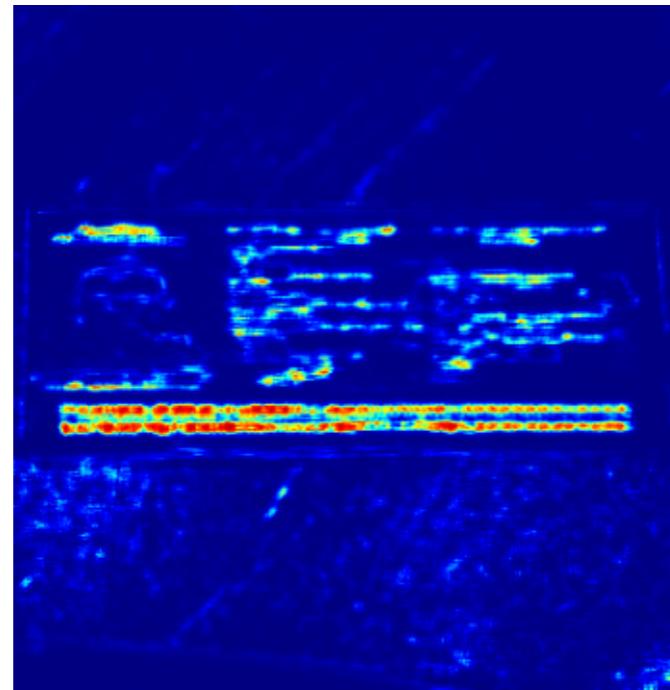
OBB Detection
IoU: 0.600



Original
18_dza_passport (unknown)



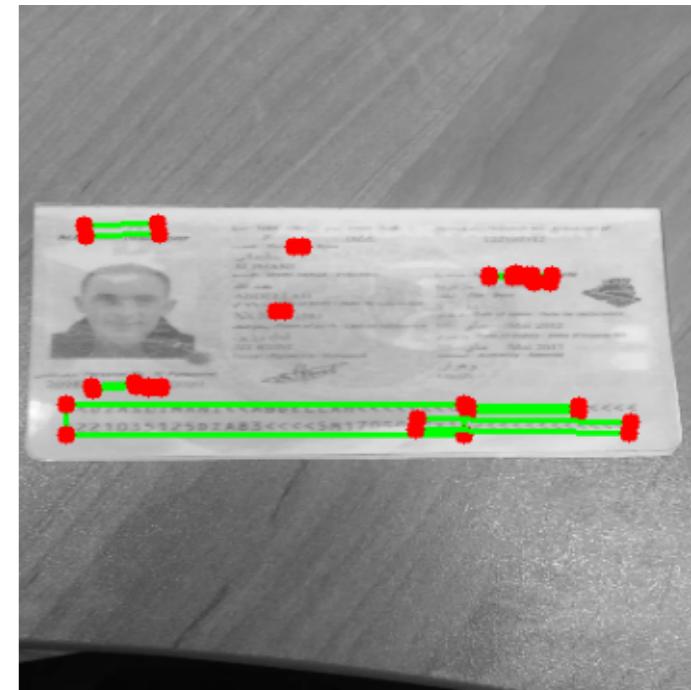
Probability Heatmap



Mask Overlay



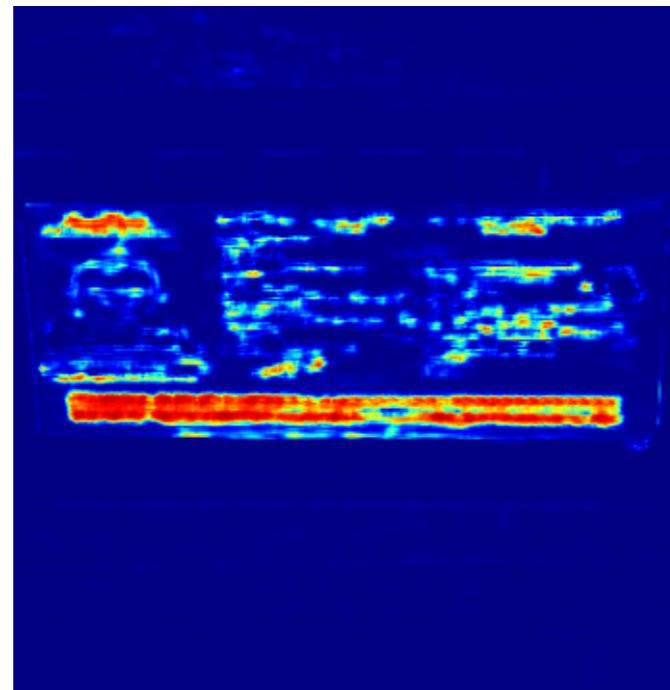
OBB Detection
IoU: 0.486



Original
18_dza_passport (unknown)



Probability Heatmap



Mask Overlay



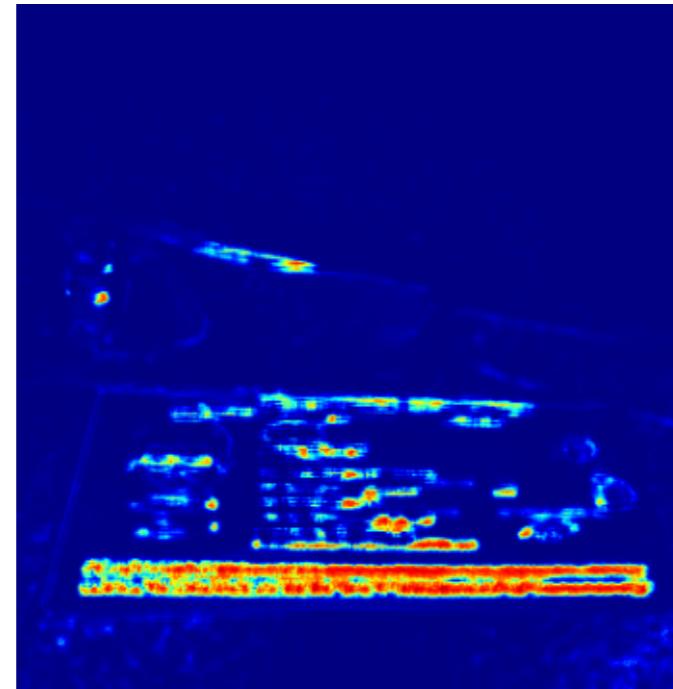
OBB Detection
IoU: 0.614



Original
aze_passport (clips)



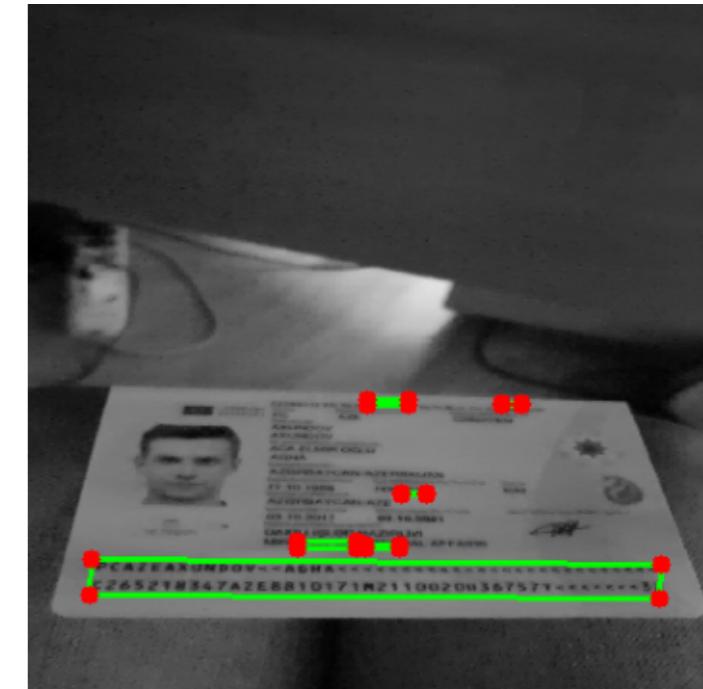
Probability Heatmap



Mask Overlay



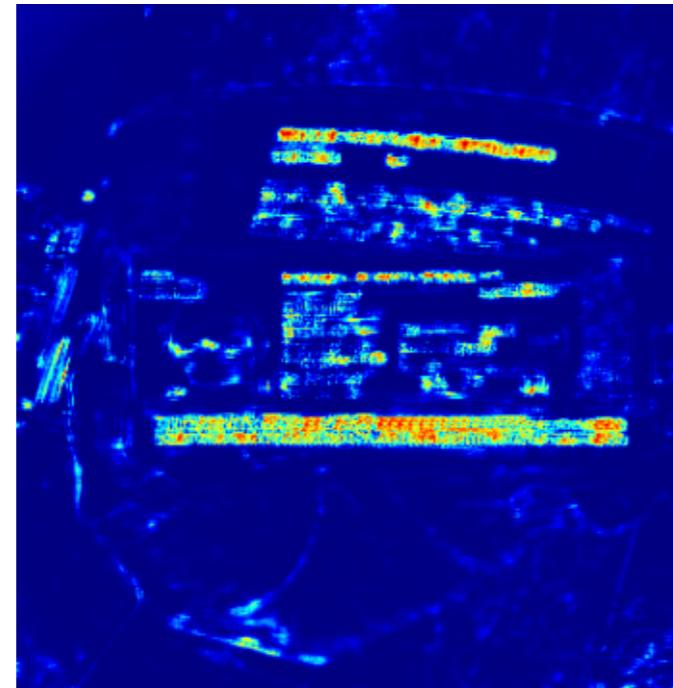
OBB Detection
IoU: 0.582



Original
lva_passport (clips)



Probability Heatmap



Mask Overlay



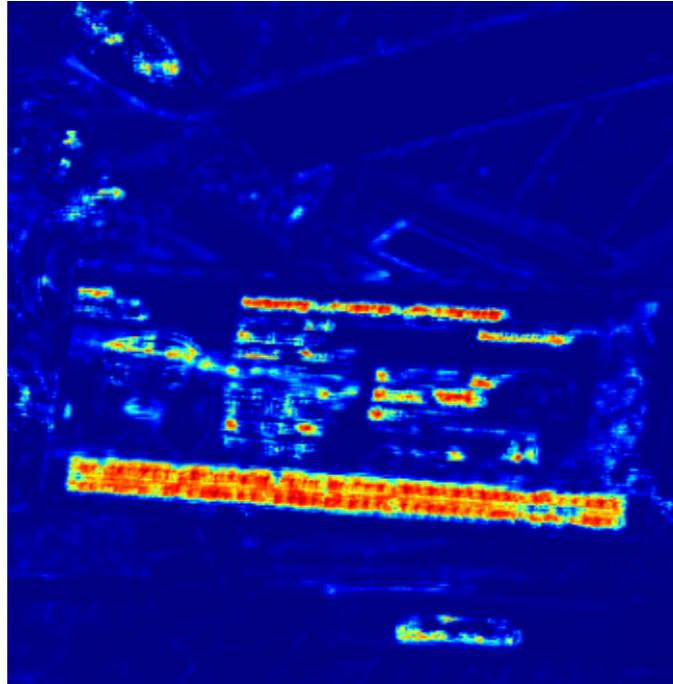
OBB Detection
IoU: 0.316



Original
32_lva_passport (unknown)



Probability Heatmap



Mask Overlay



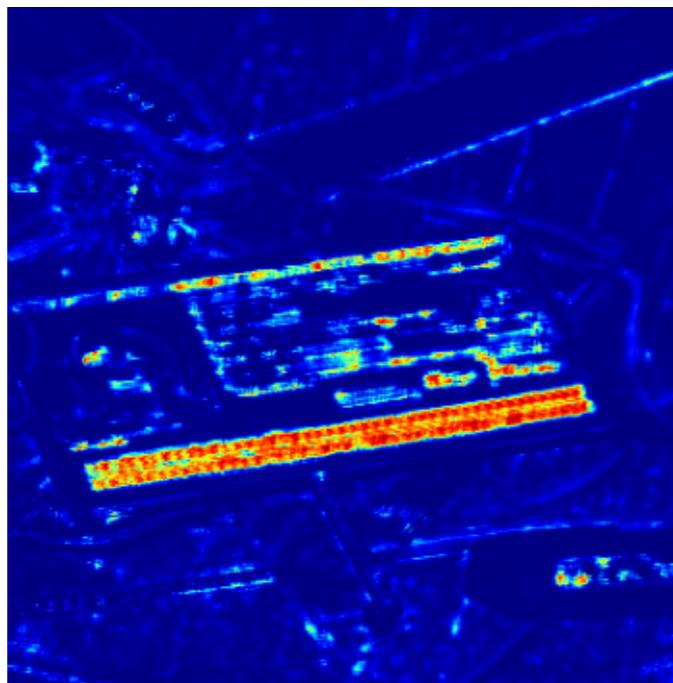
OBB Detection
IoU: 0.586



Original
11_cze_passport (unknown)



Probability Heatmap



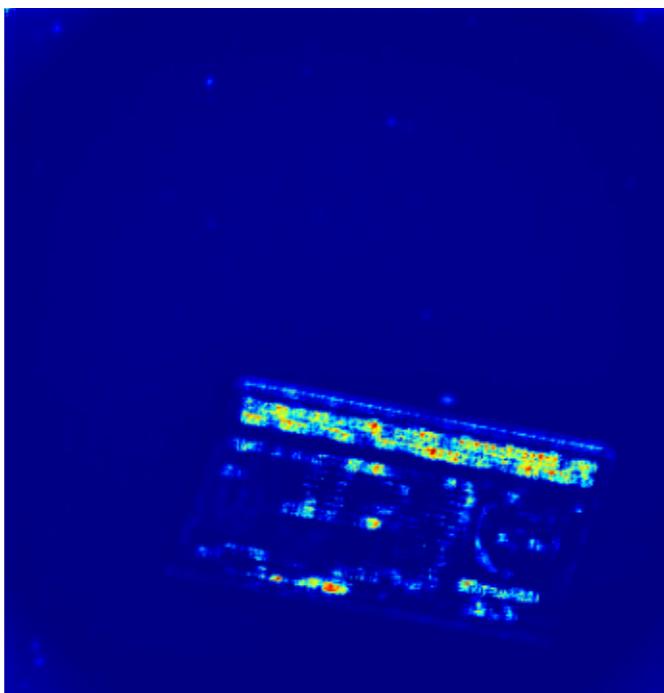
Mask Overlay



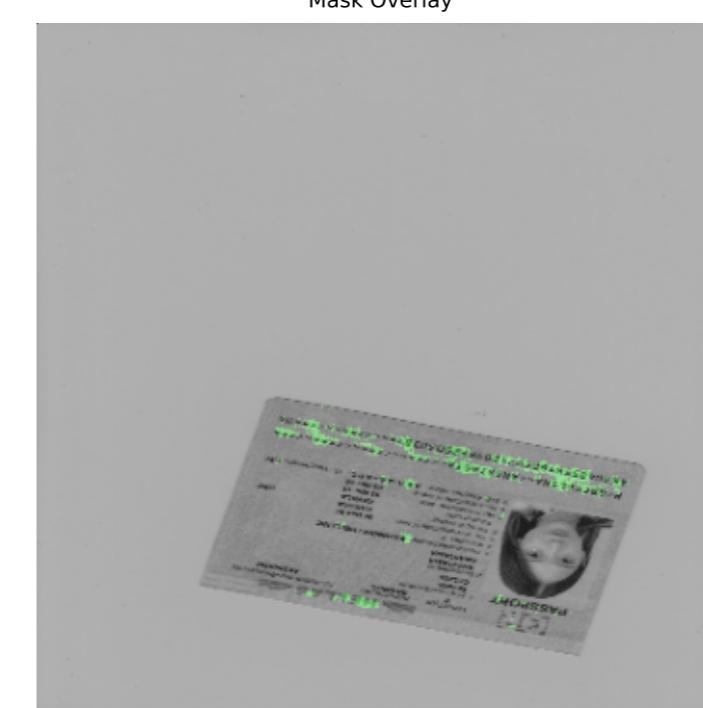
OBB Detection
IoU: 0.668



Original
grc_passport (scan_rotated)



Probability Heatmap

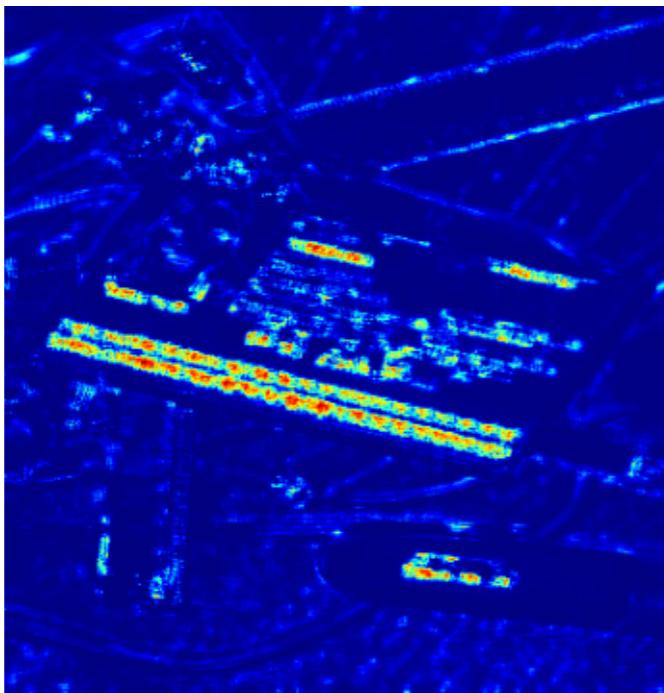


Mask Overlay



OBB Detection
IoU: 0.308

Original
17_deu_passport_old (unknown)



Probability Heatmap



Mask Overlay



OBB Detection
IoU: 0.377