

Team: Sungai Main



TECHNISCHE  
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# Hackathon 2024

Image-based optimization for robotic handling



Image source: Created with DALL-E, an AI image generator from OpenAI.

# Agenda

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Introduction

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Modell U-Net

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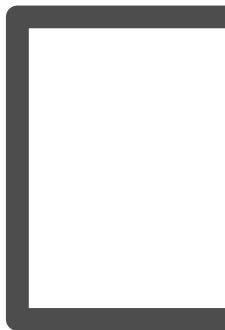
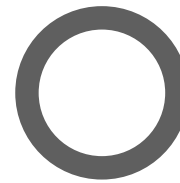
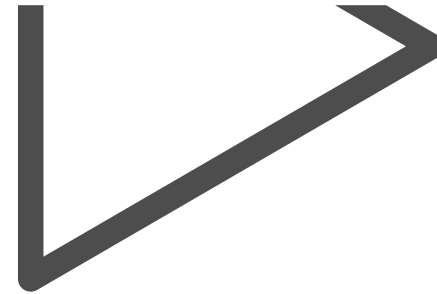
Gripper Position

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Solution



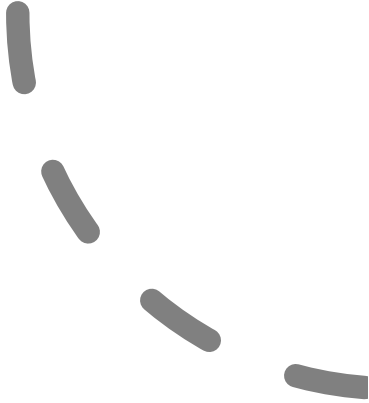
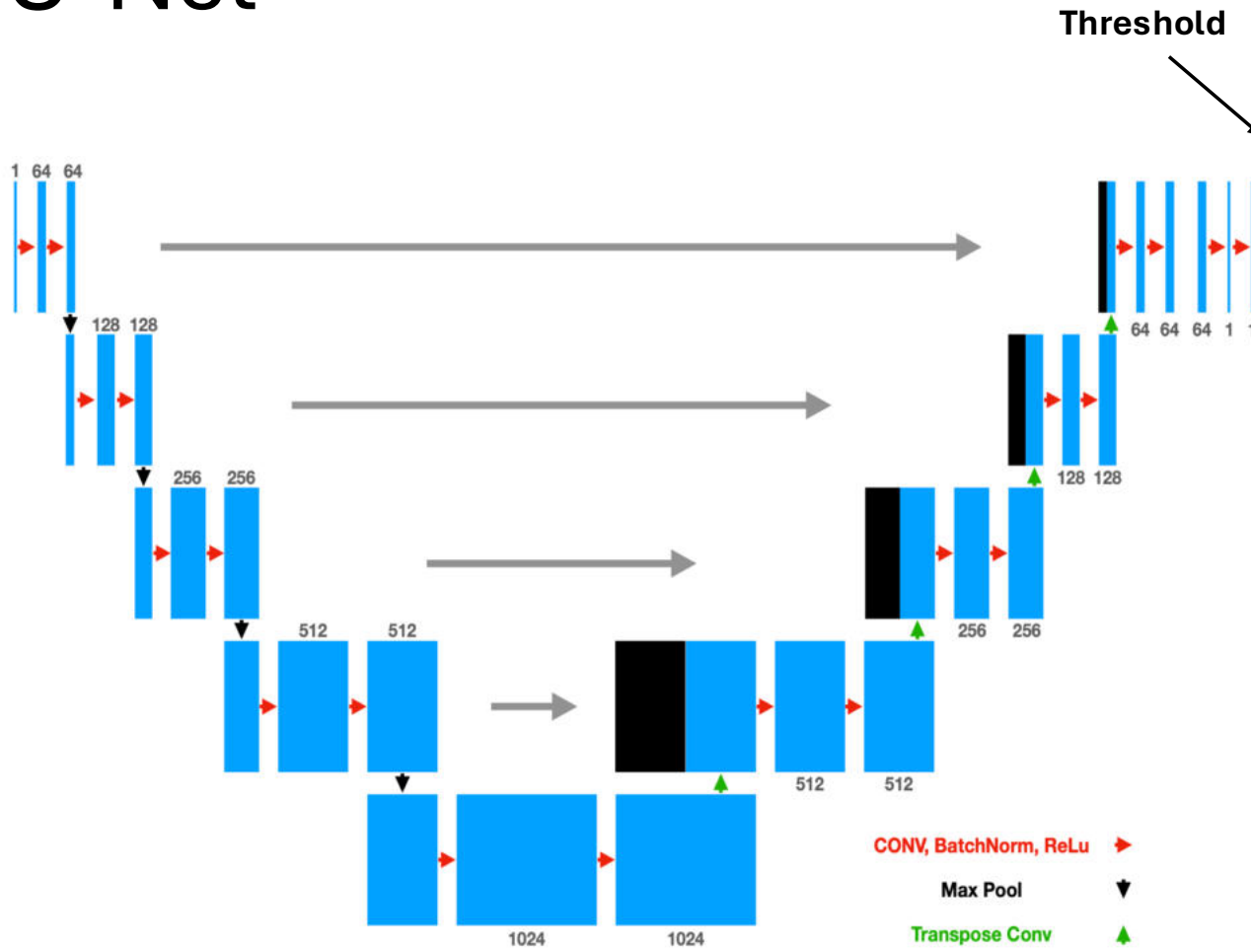
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# Introduction

# Modell U-Net



# Modell U-Net



# Gripper Position



CENTRAL  
PLACEMENT



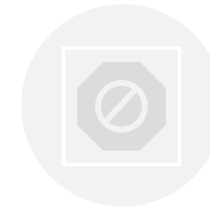
VALIDITY CHECK



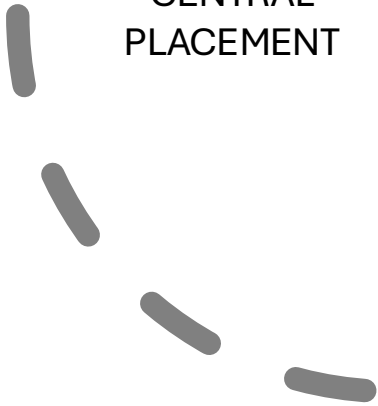
EXPLORING  
OTHER POSITIONS



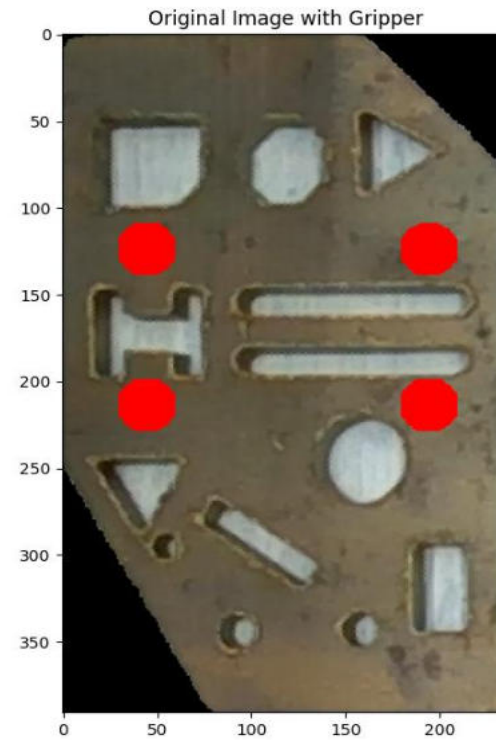
RESTARTING  
ROTATION



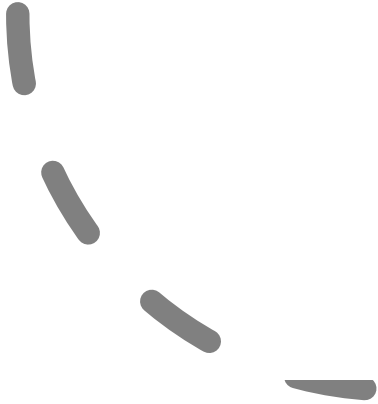
STOPPING  
CONDITION



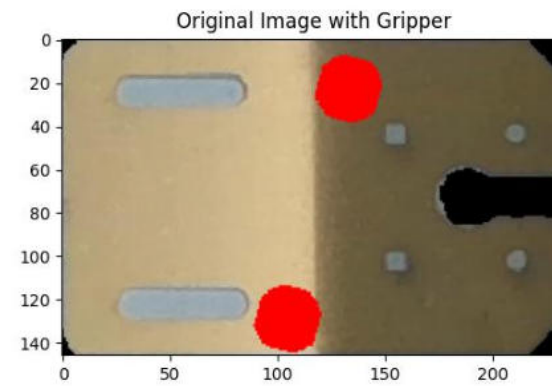
# Solution



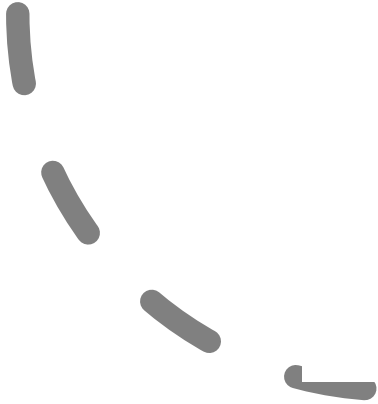
Gripper Position:  $x=30$ ,  $y=109$ ,  $\alpha=0^\circ$



# Solution



Gripper Position:  $x=87$ ,  $y=5$ ,  $\alpha=75^\circ$



**ARKU**



Komp **A-KI** PRO  **KI**

**VDI** 

GEFÖRDERT VOM



Bundesministerium  
für Bildung  
und Forschung

Thank you for your Attention!