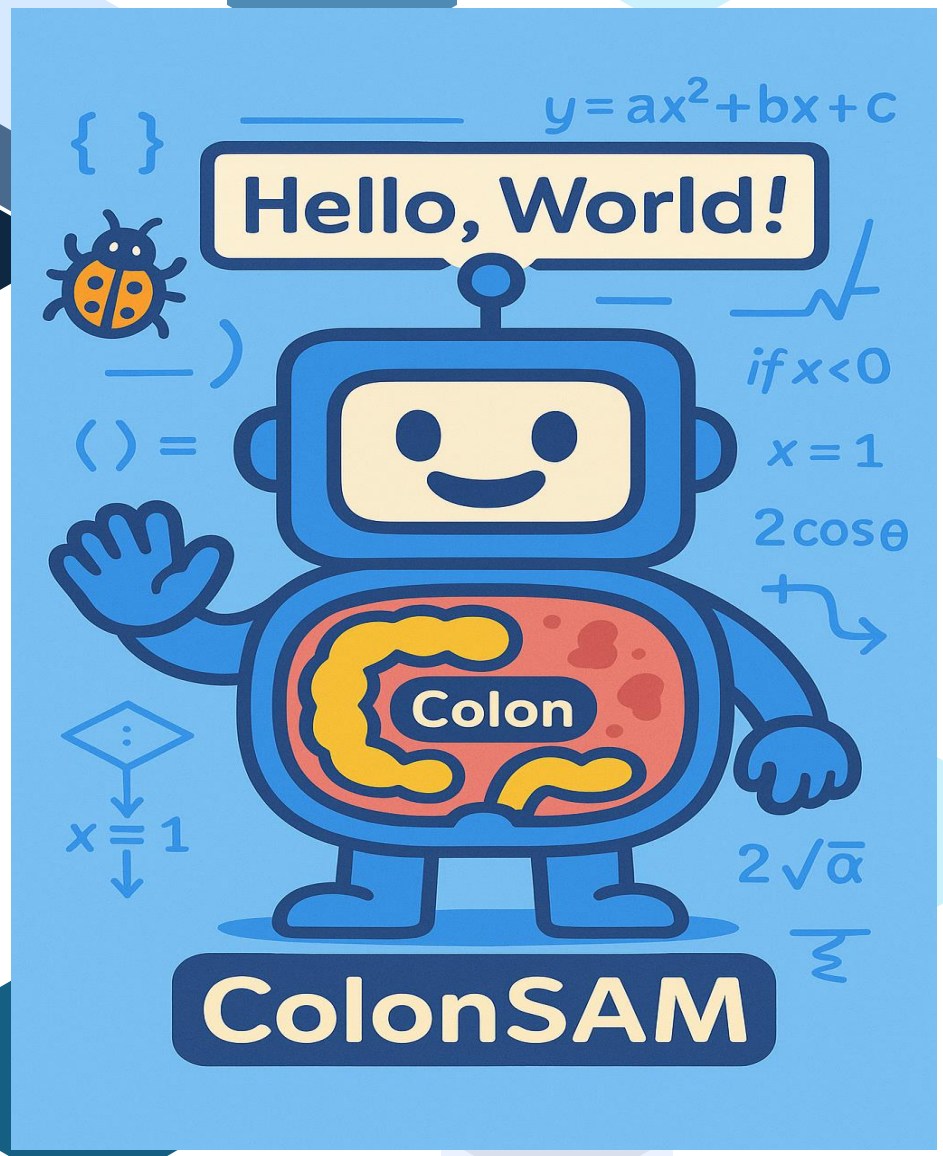
CRCV REU 2025

Week 9

Mentor: Dr. Tian
Student: Syn Nguyen



ColonSAM

Goal:

Develop prompt free model to segment polyps (other organs)

Why:

Colorectal cancer survival rate: 91% (stage I and II), 13% (stage IV)

Contribution:

SOTA, light-weight prompt-free segmentation model

2

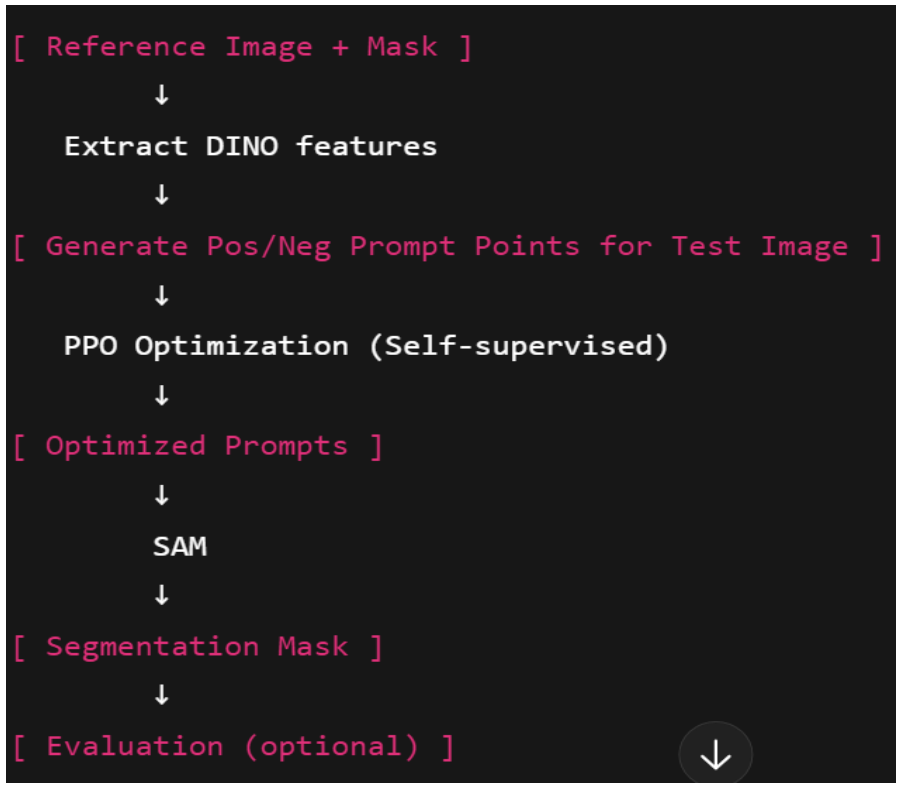
Completed



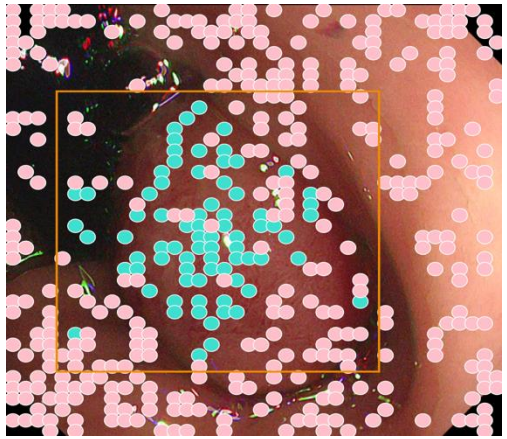
What have been done

- Trained PPO agent on SUNSEG dataset
- Adapted model to 3D dataset with SAM2

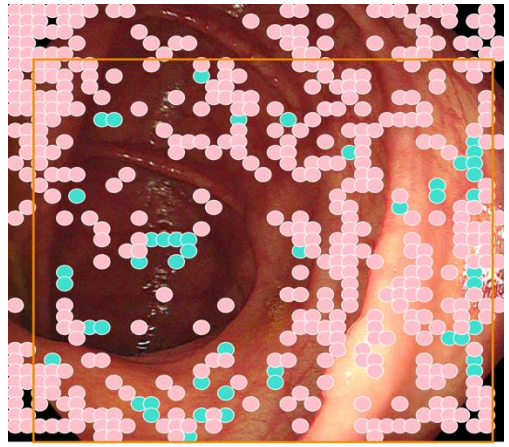
Plug-and-Play PPO



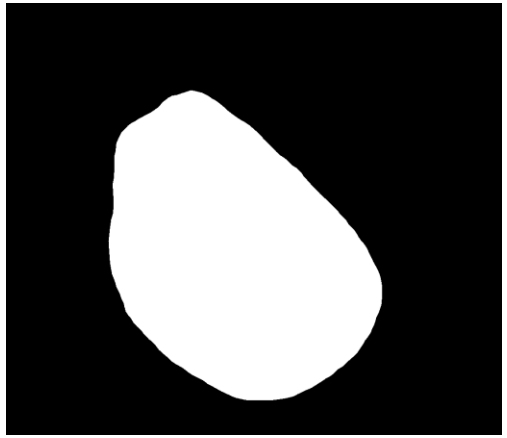
Initial

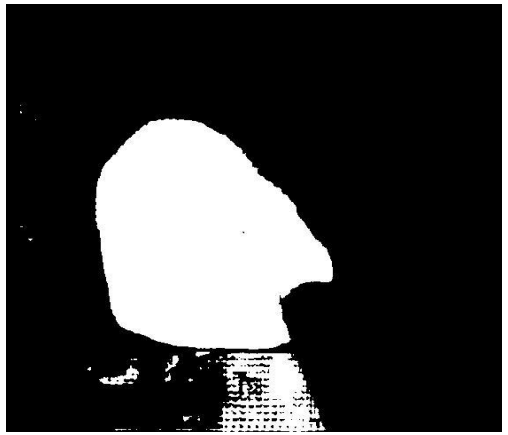






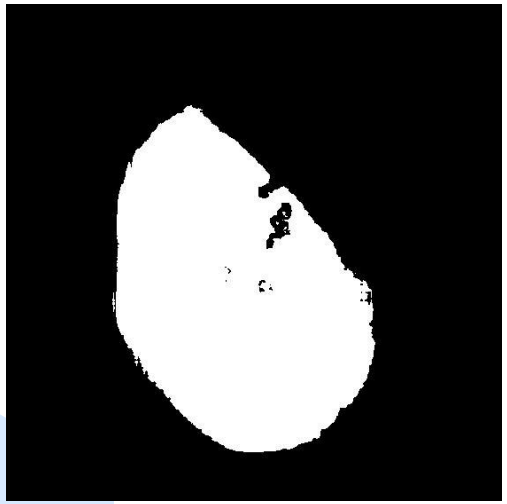
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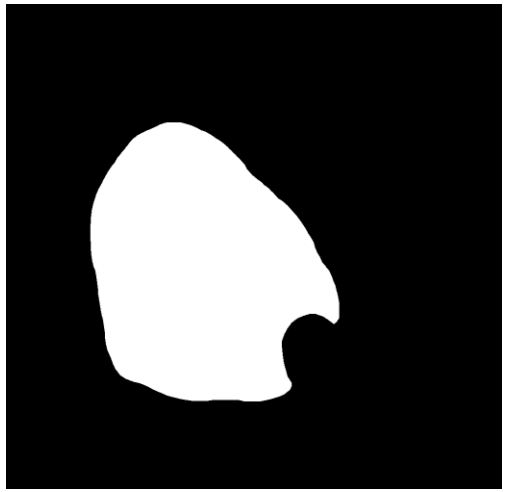






SAM



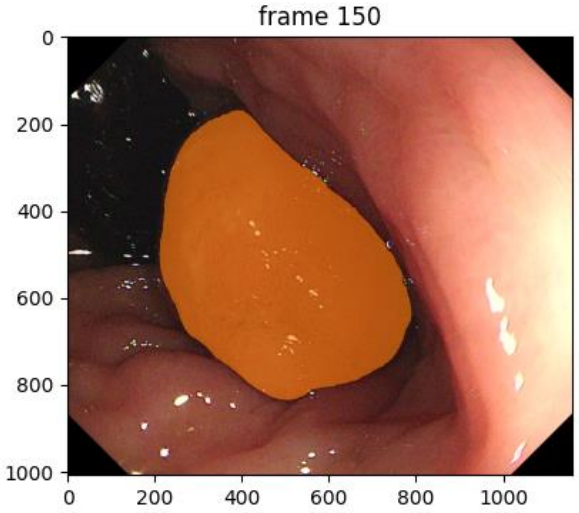


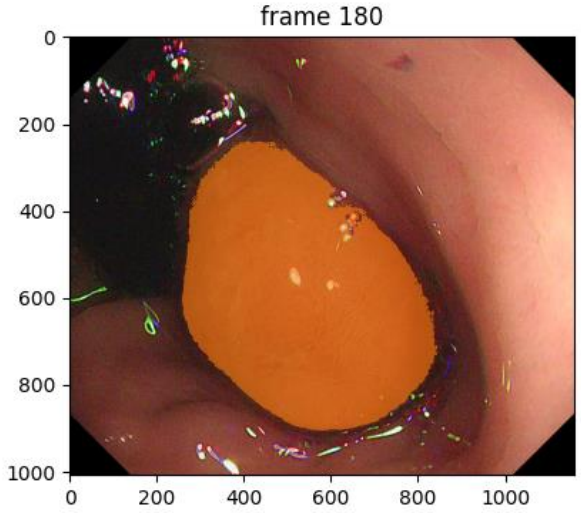


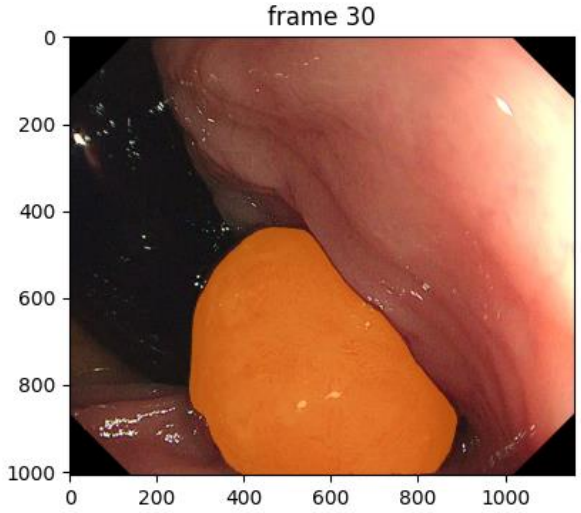
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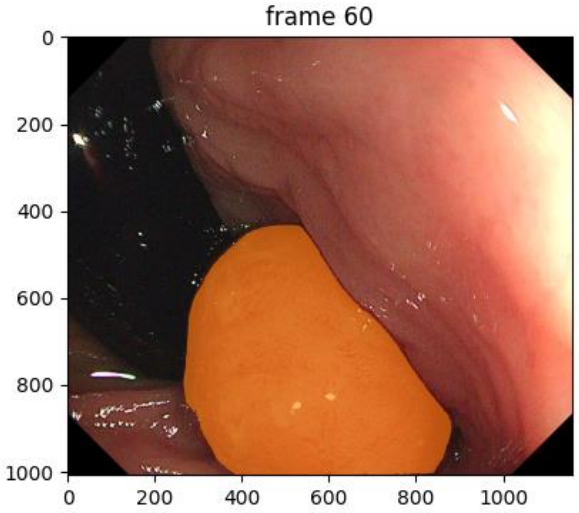
Results

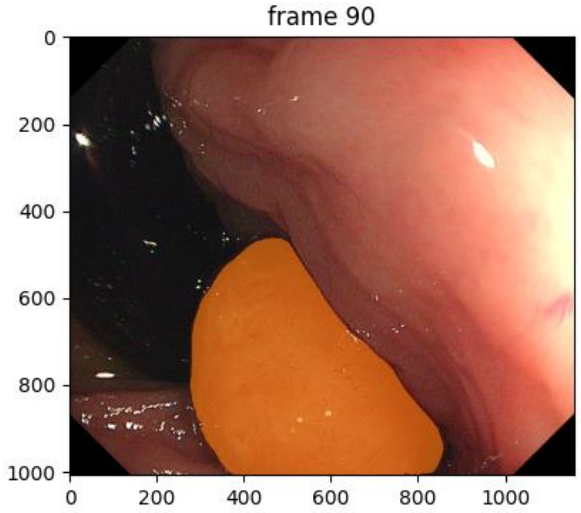


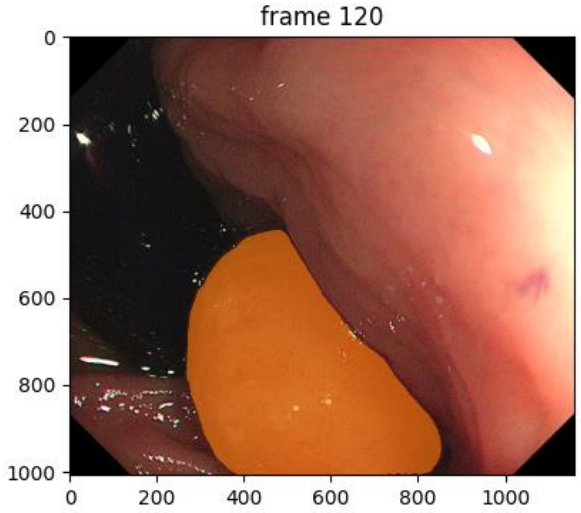

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4

Plan



Futurework

- ☐ Train agent on more medical data

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THANK YOU!

