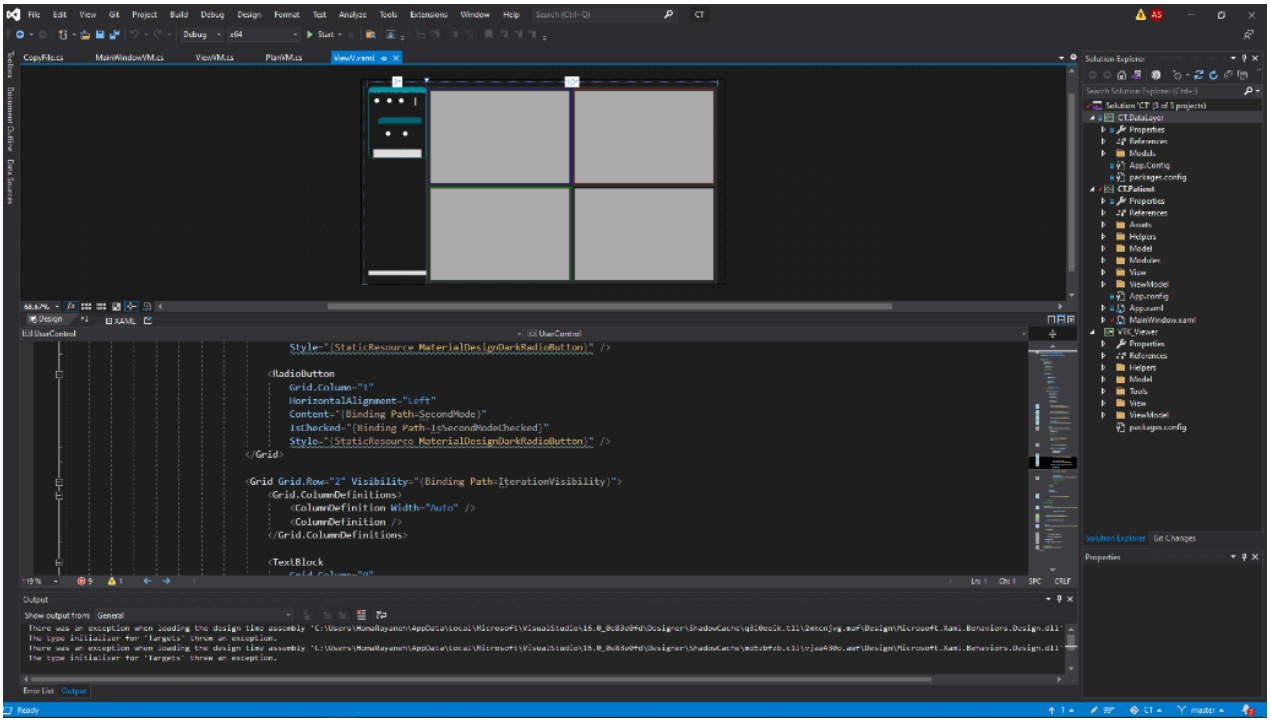
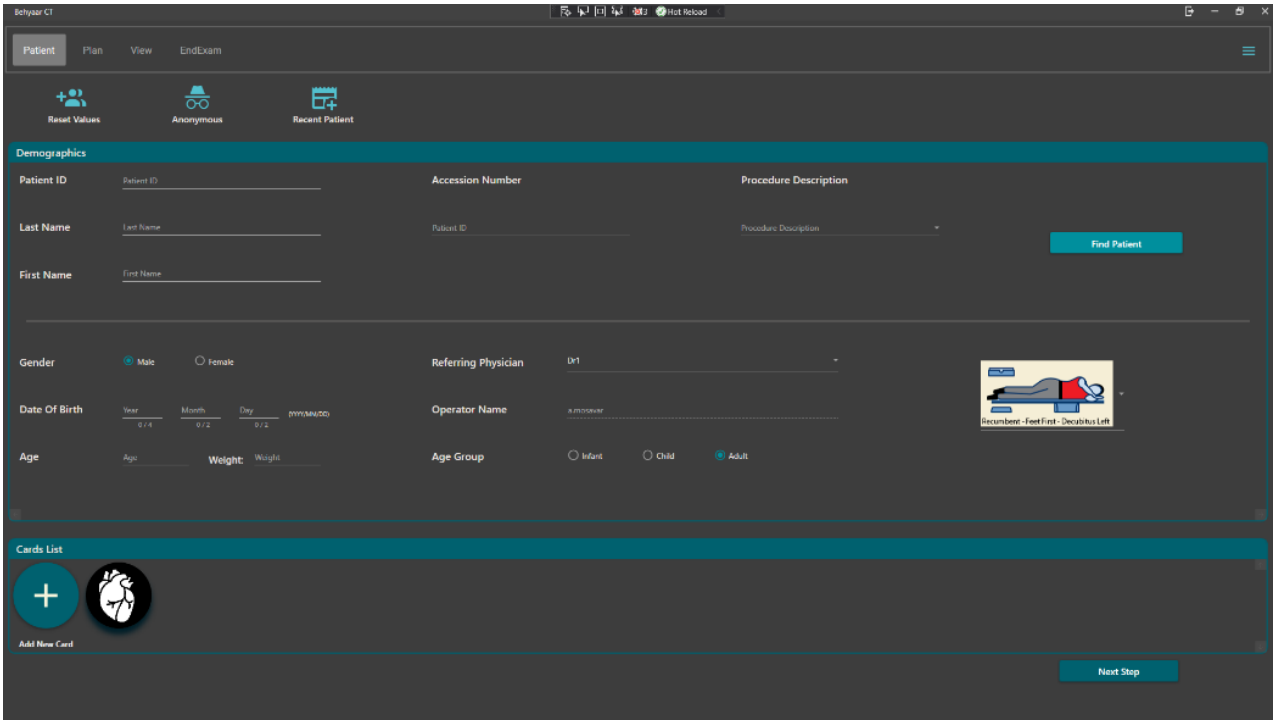
Abbas Mazrouei Sebdani

1. CT Scan Software & Reconstruction:





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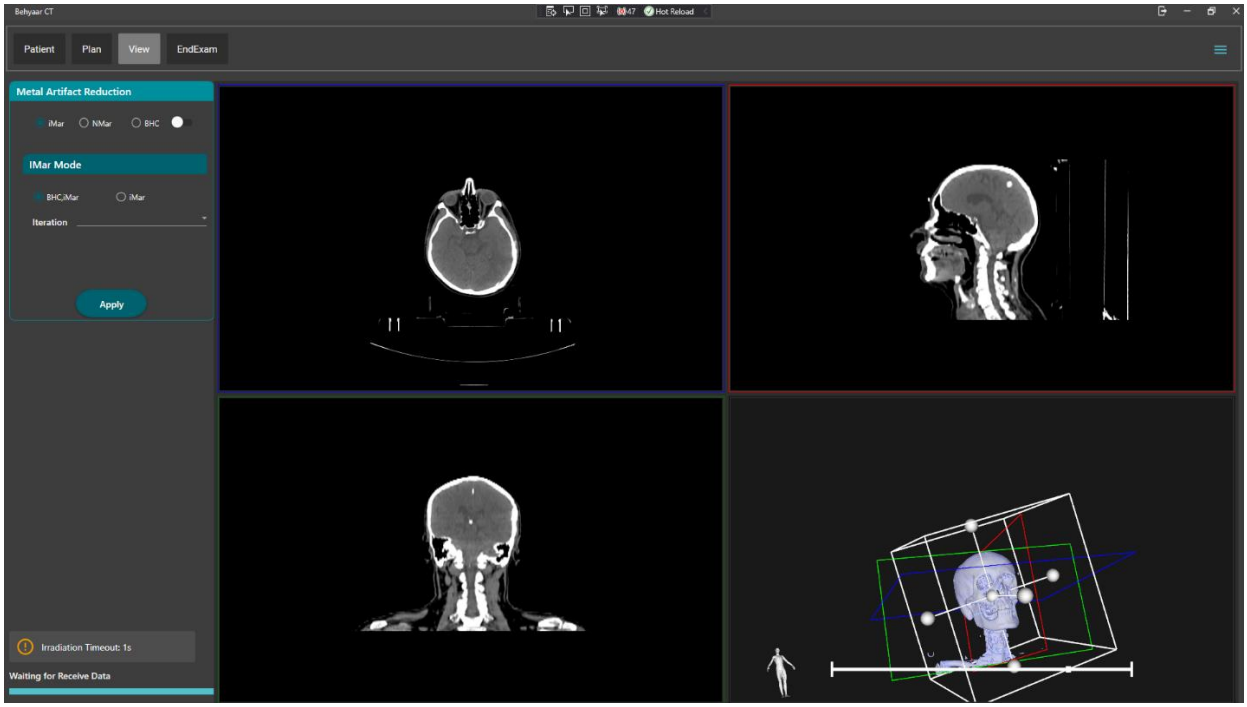
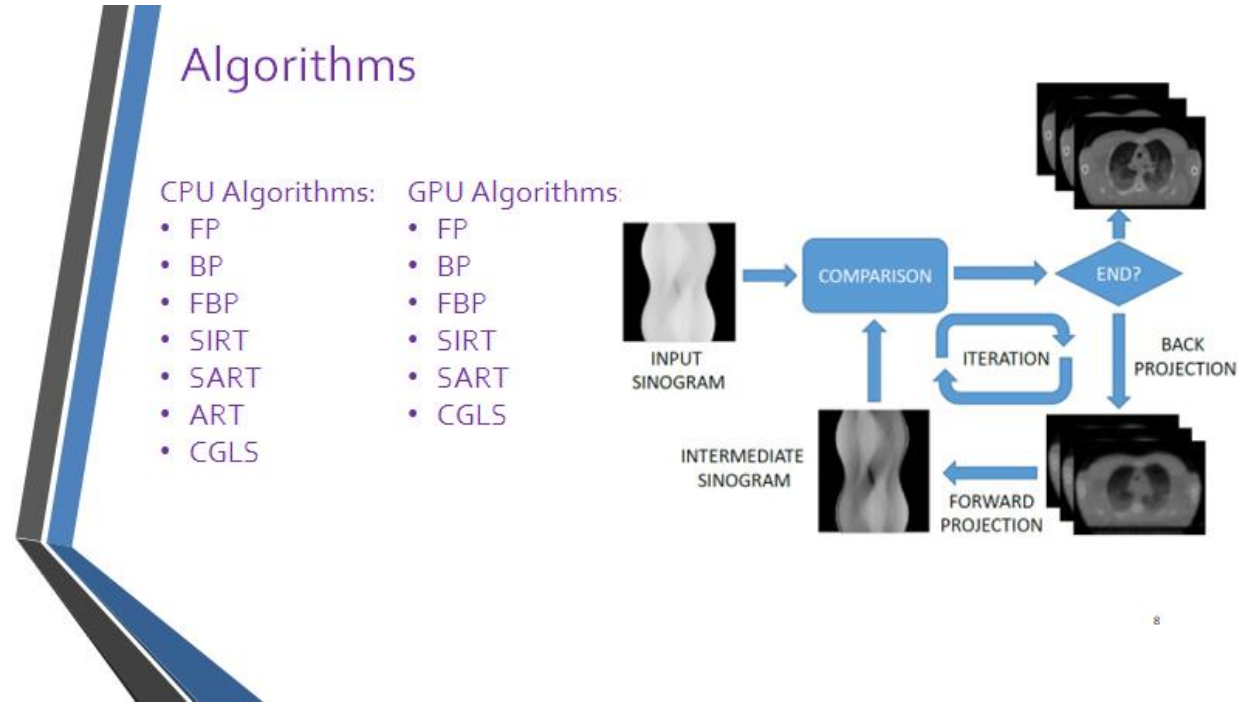
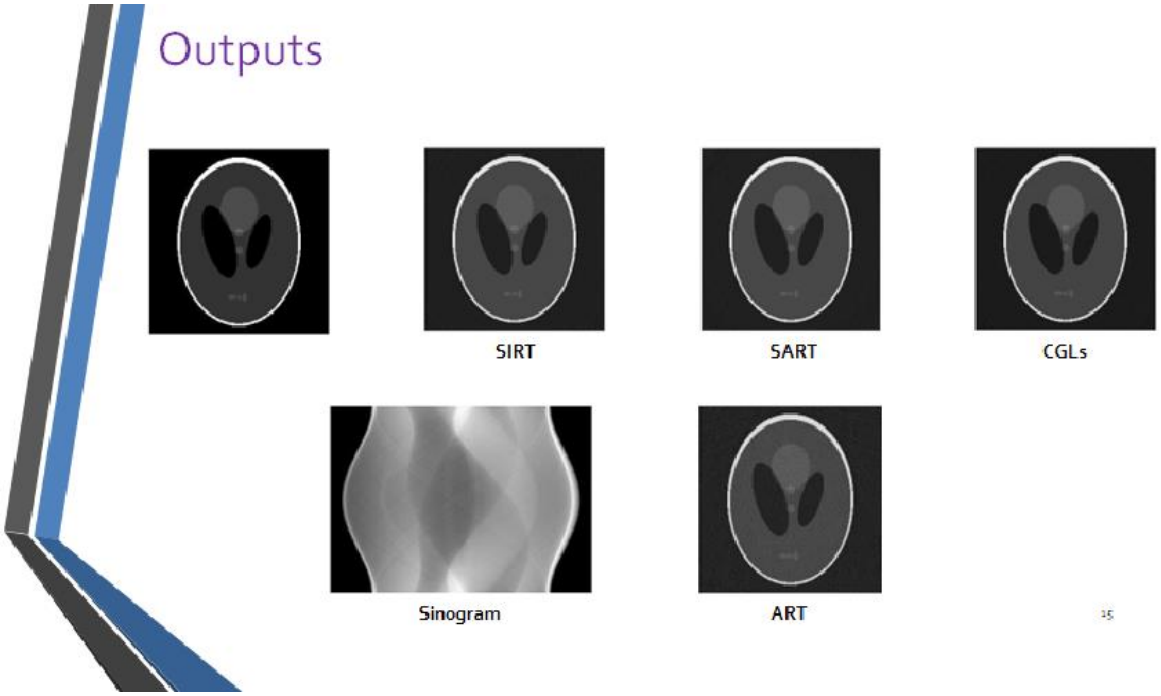


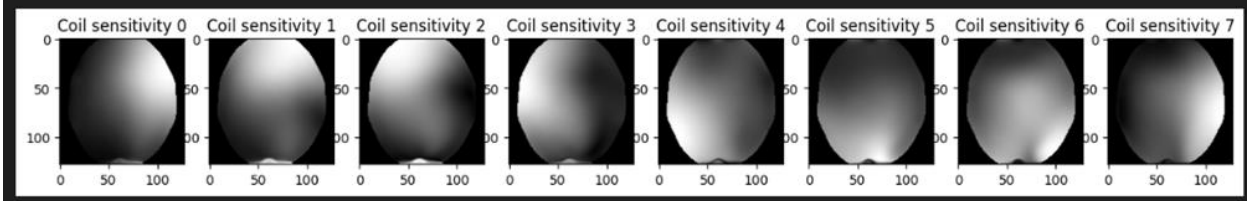


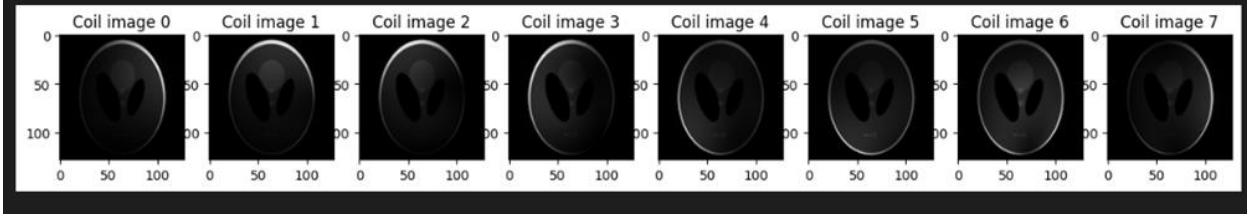


2. MRI Reconstruction:

```
sens = bart(1, 'ecalib -m1', ksp[:,:,None,:]).squeeze()

plt.figure(figsize=(16,20))
for i in range(nc):
    plt.subplot(1, nc, i+1)
    plt.imshow(abs(sens[:,:,i]).squeeze(), cmap='gray')
    plt.title('Coil sensitivity {}'.format(i))

plt.figure(figsize=(16,20))
for i in range(nc):
    plt.subplot(1, nc, i+1)
    plt.imshow(abs(cimg[:,:,i]).squeeze(), cmap='gray')
    plt.title('Coil image {}'.format(i))
```

```
WARN: BART version is not reproducible.

Done.
```





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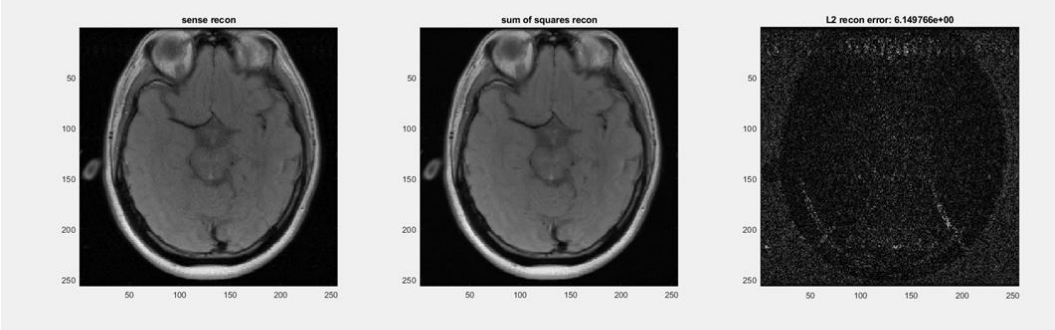

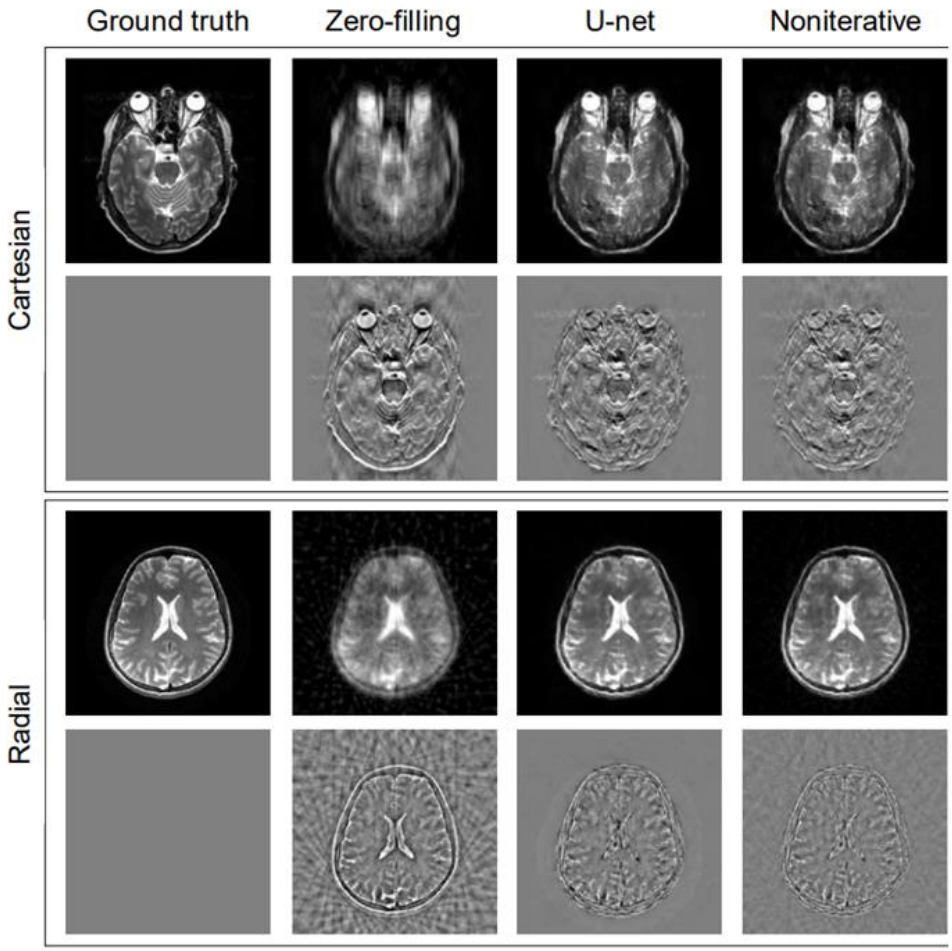

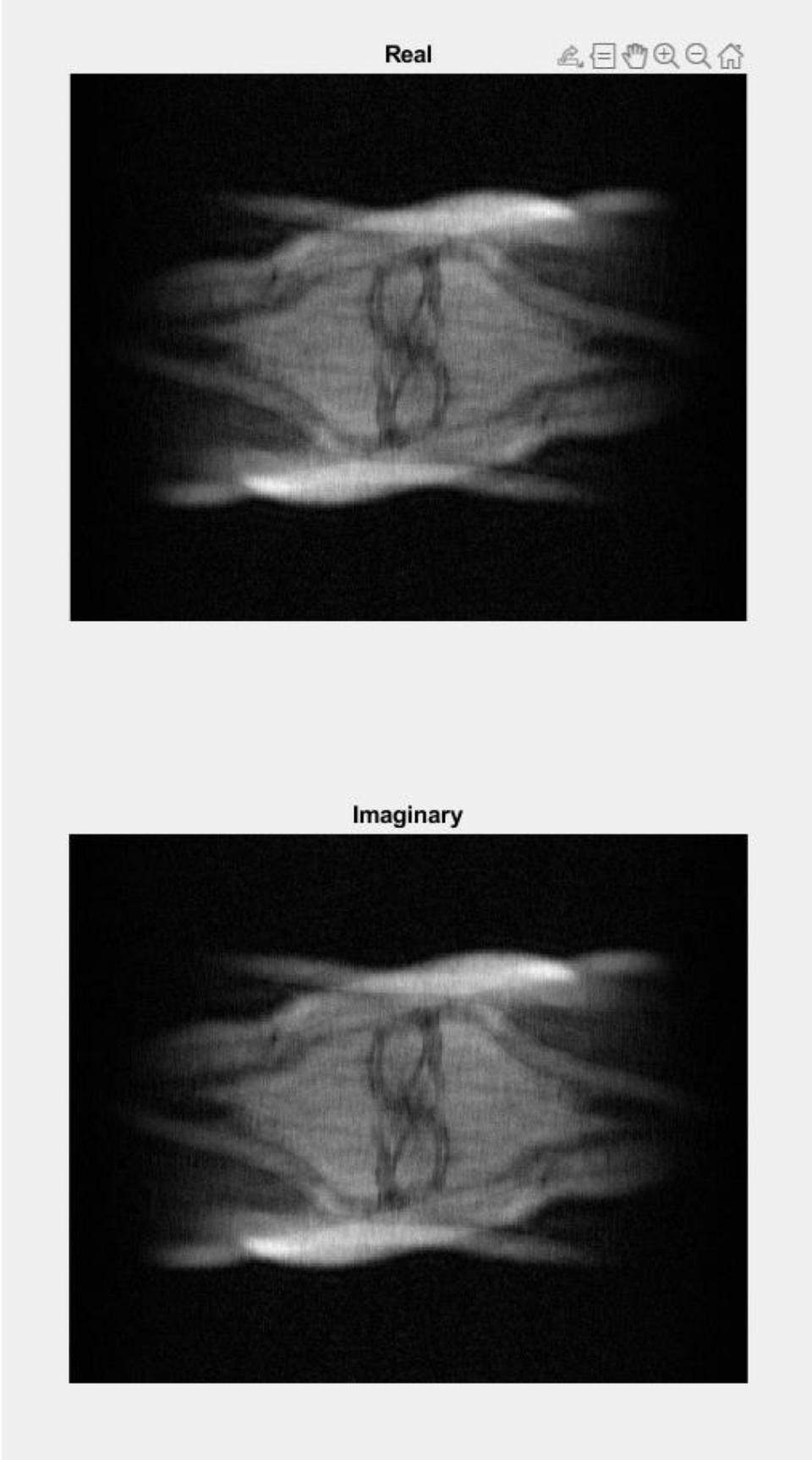
Real
Imaginary

3. Treatment Planning System (TPS):

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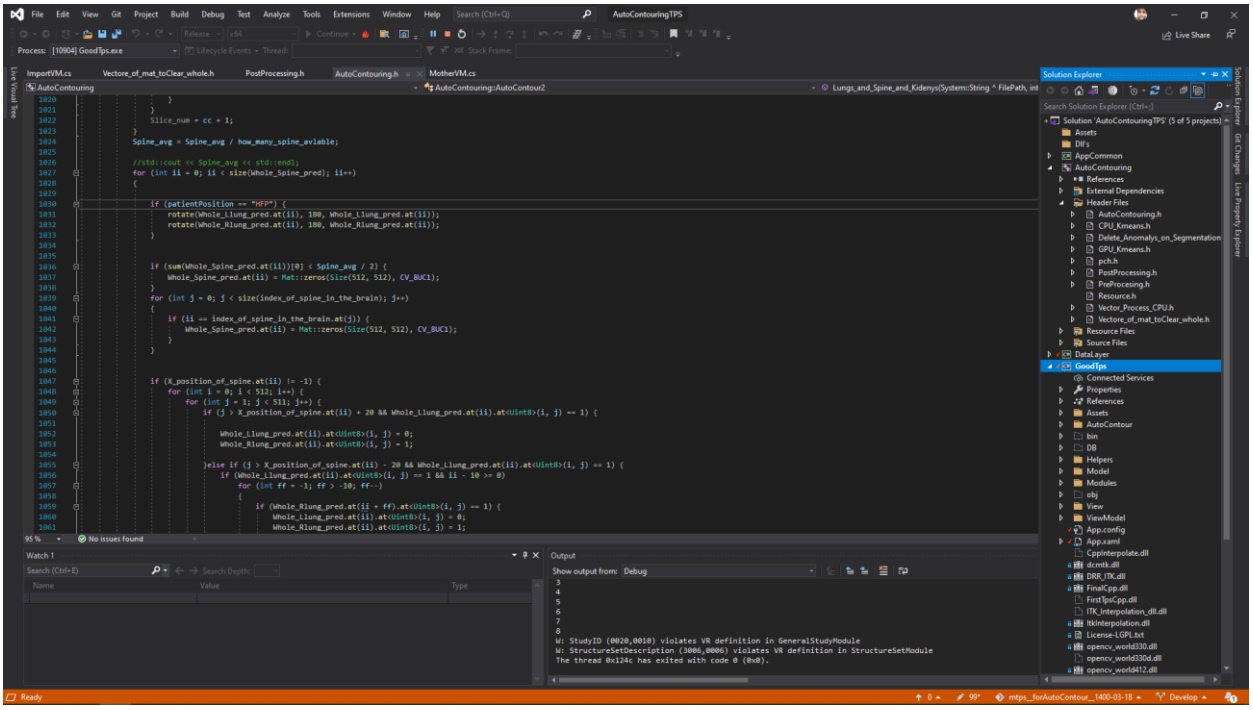
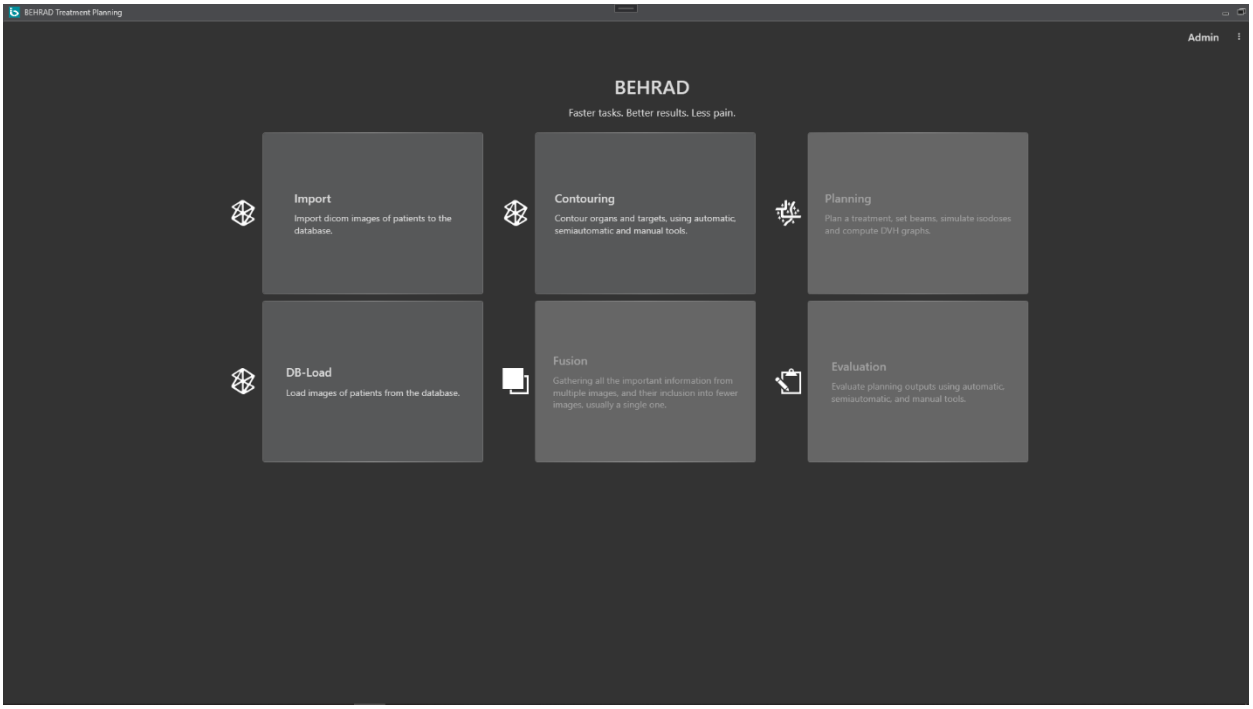
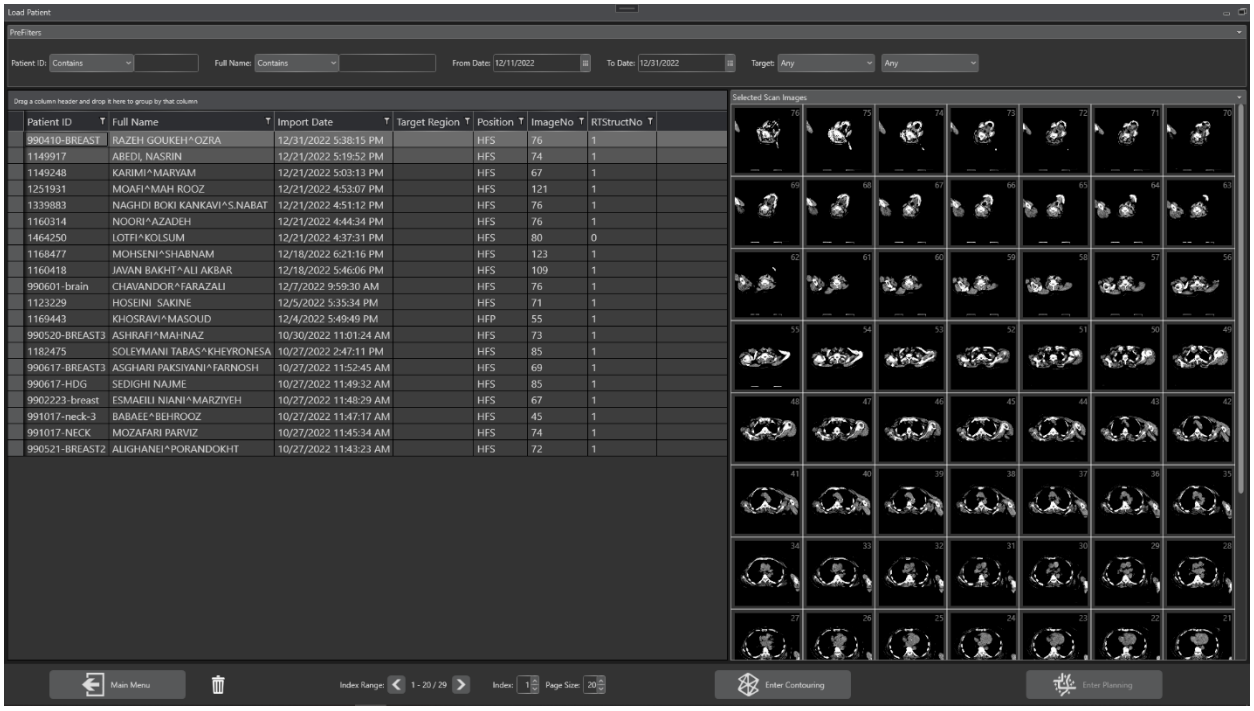
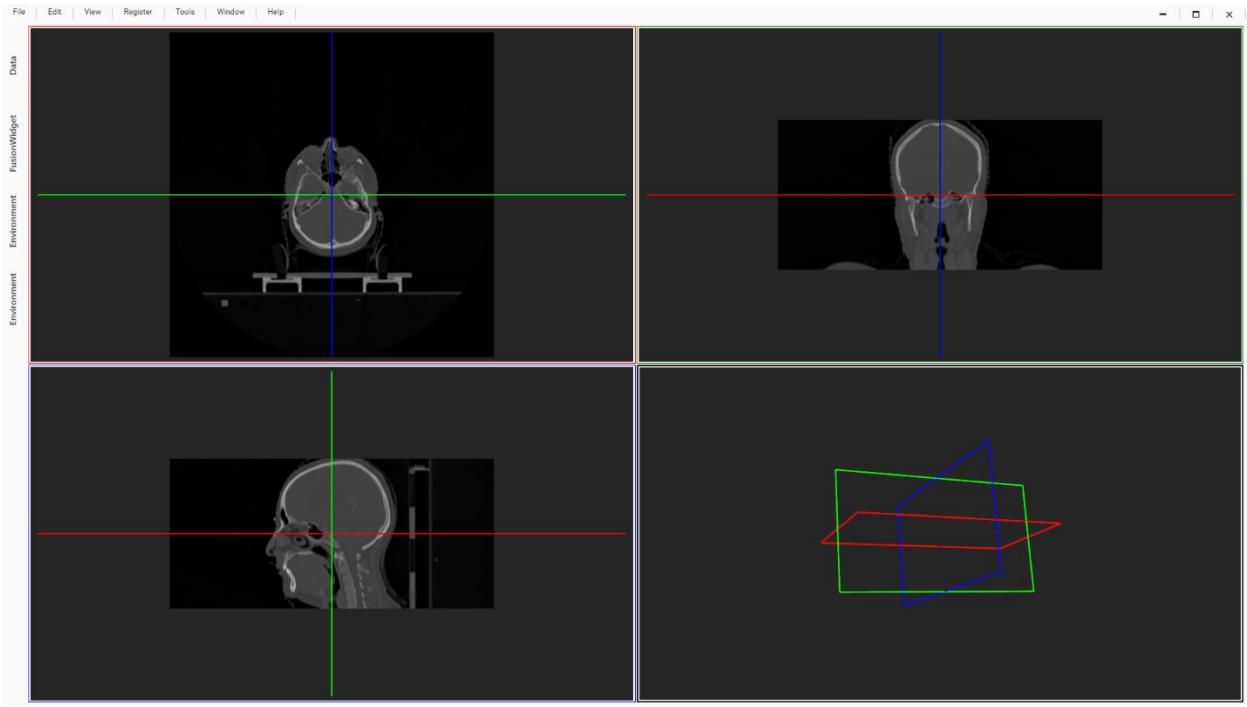




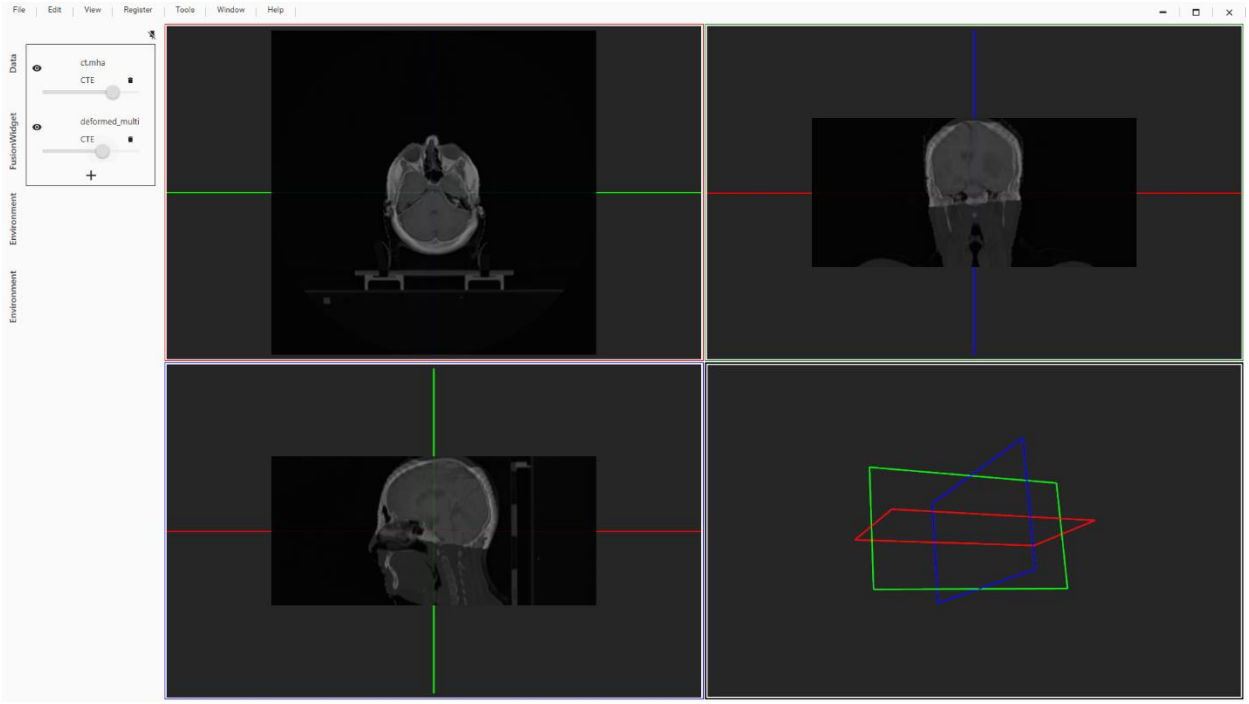
Abbas Mazrouei Sebdani

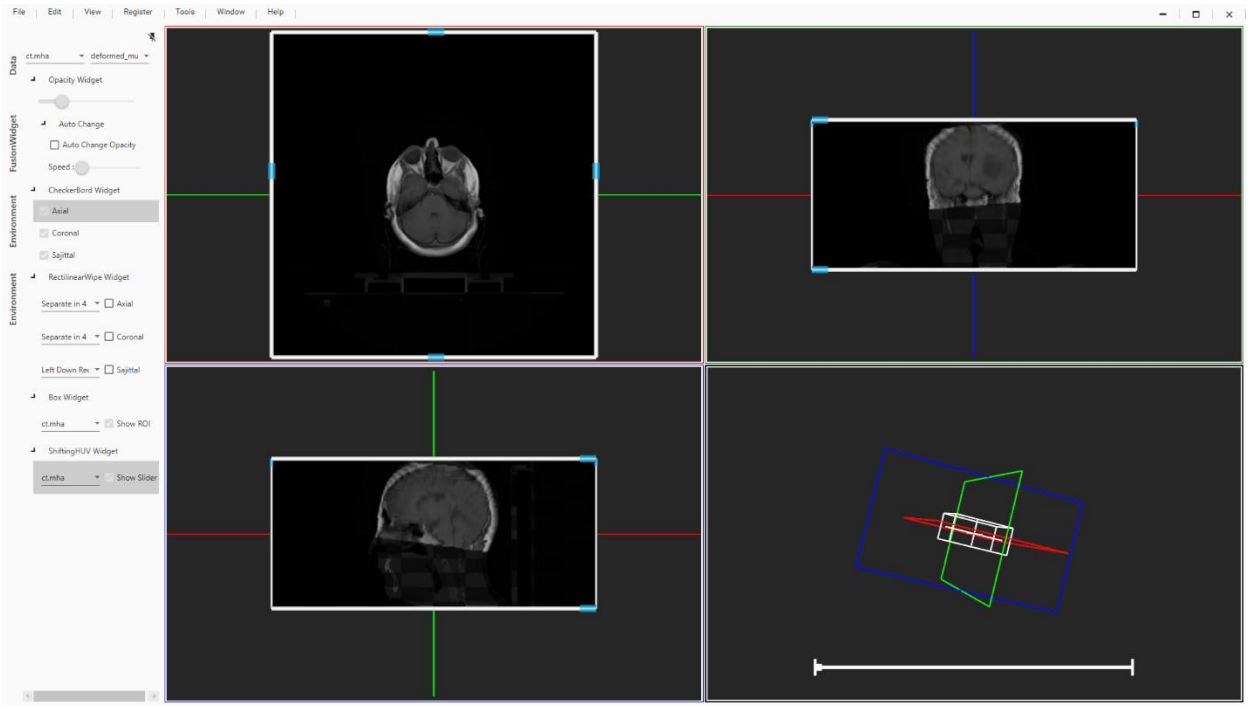


A. Fusion:

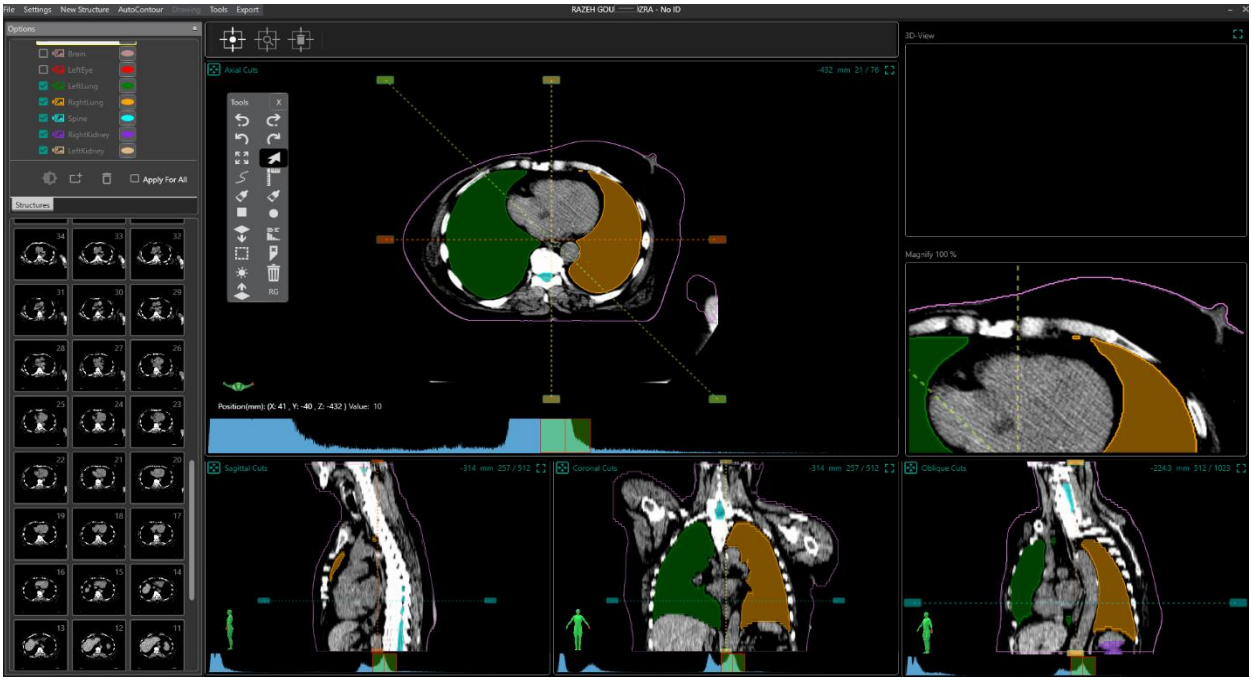


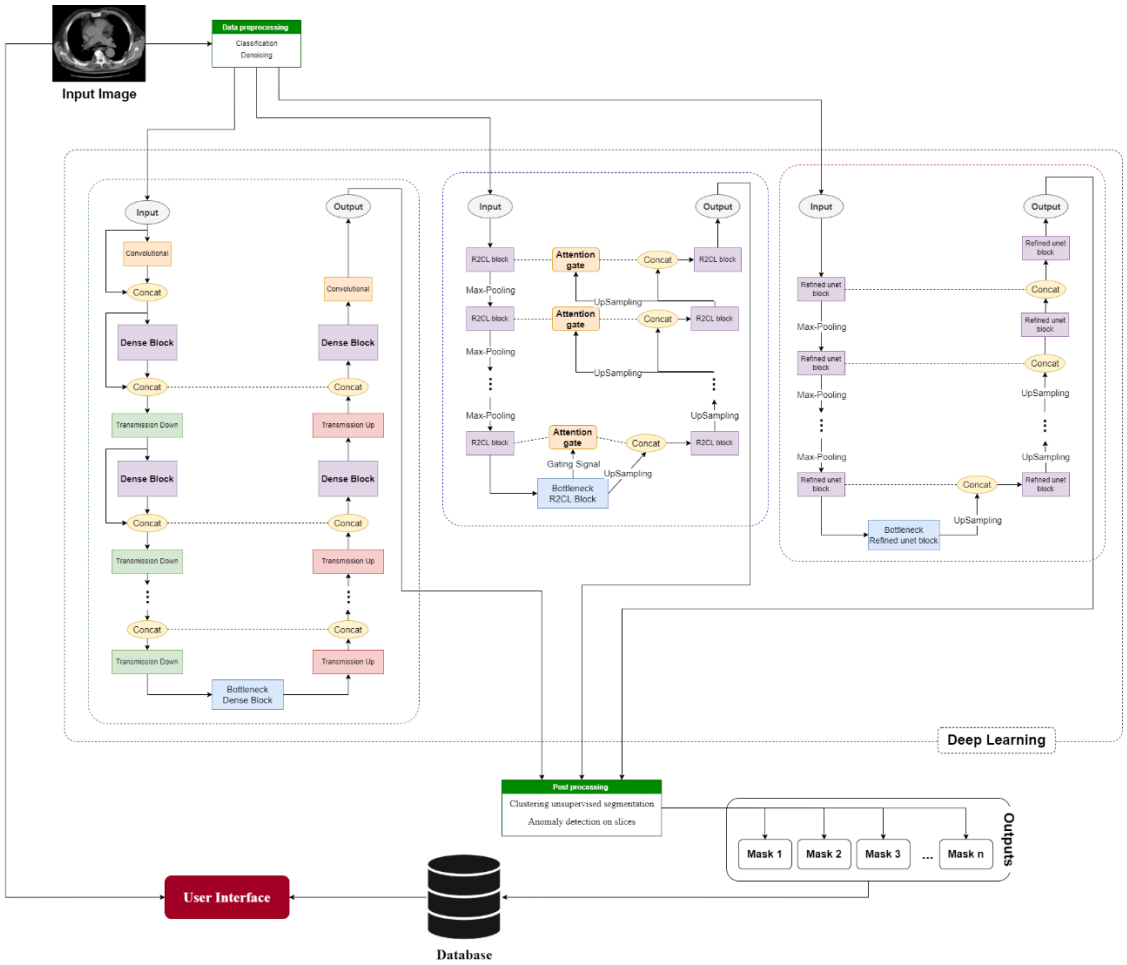
Abbas Mazrouei Sebdani



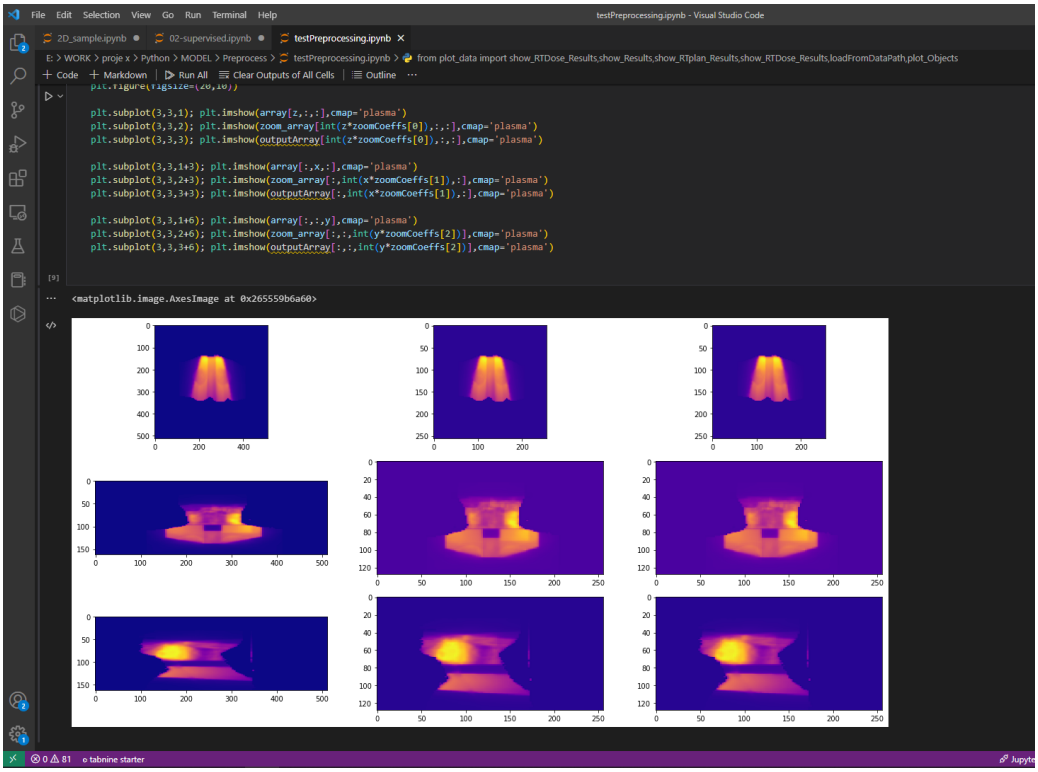


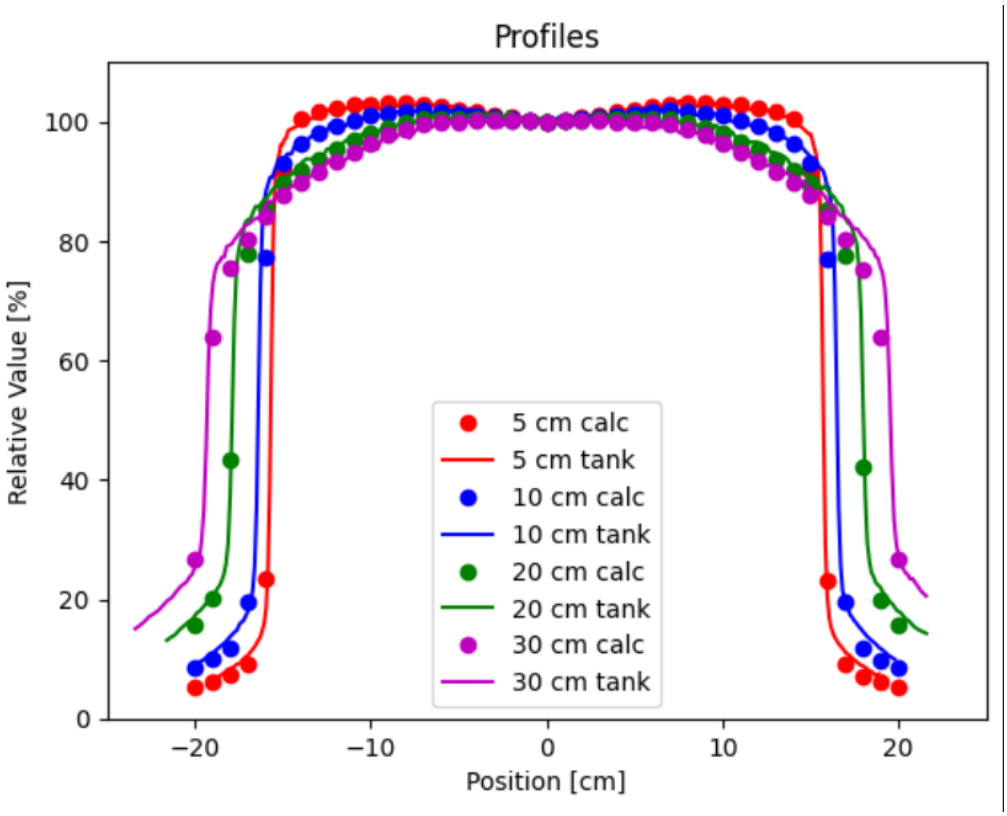
B. Contouring:





C. Dose Calculation





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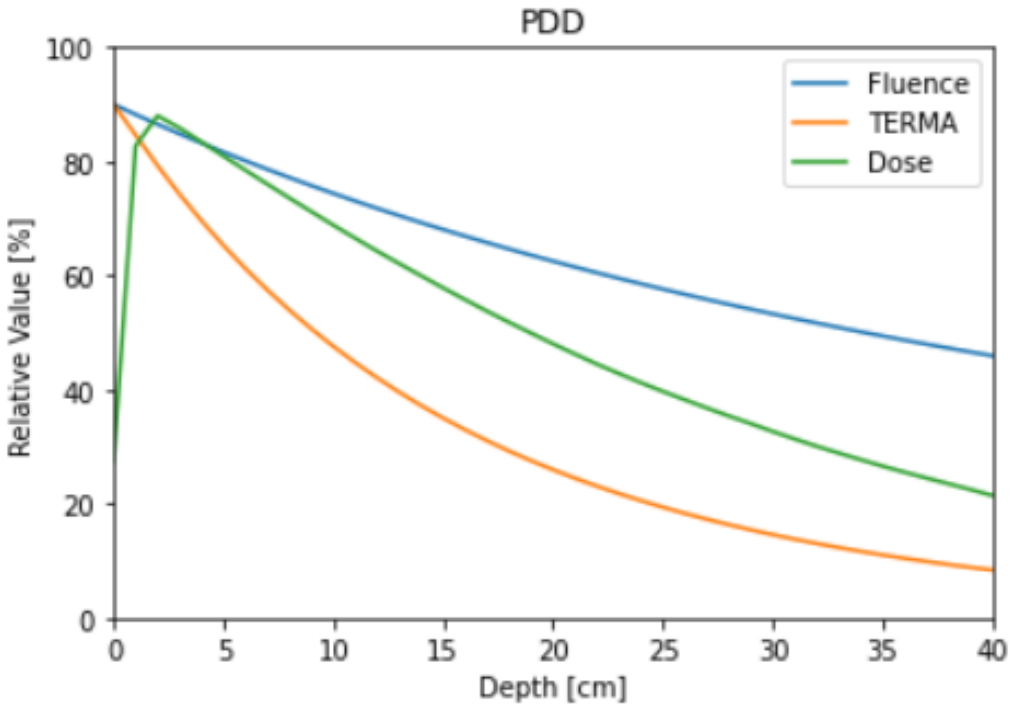

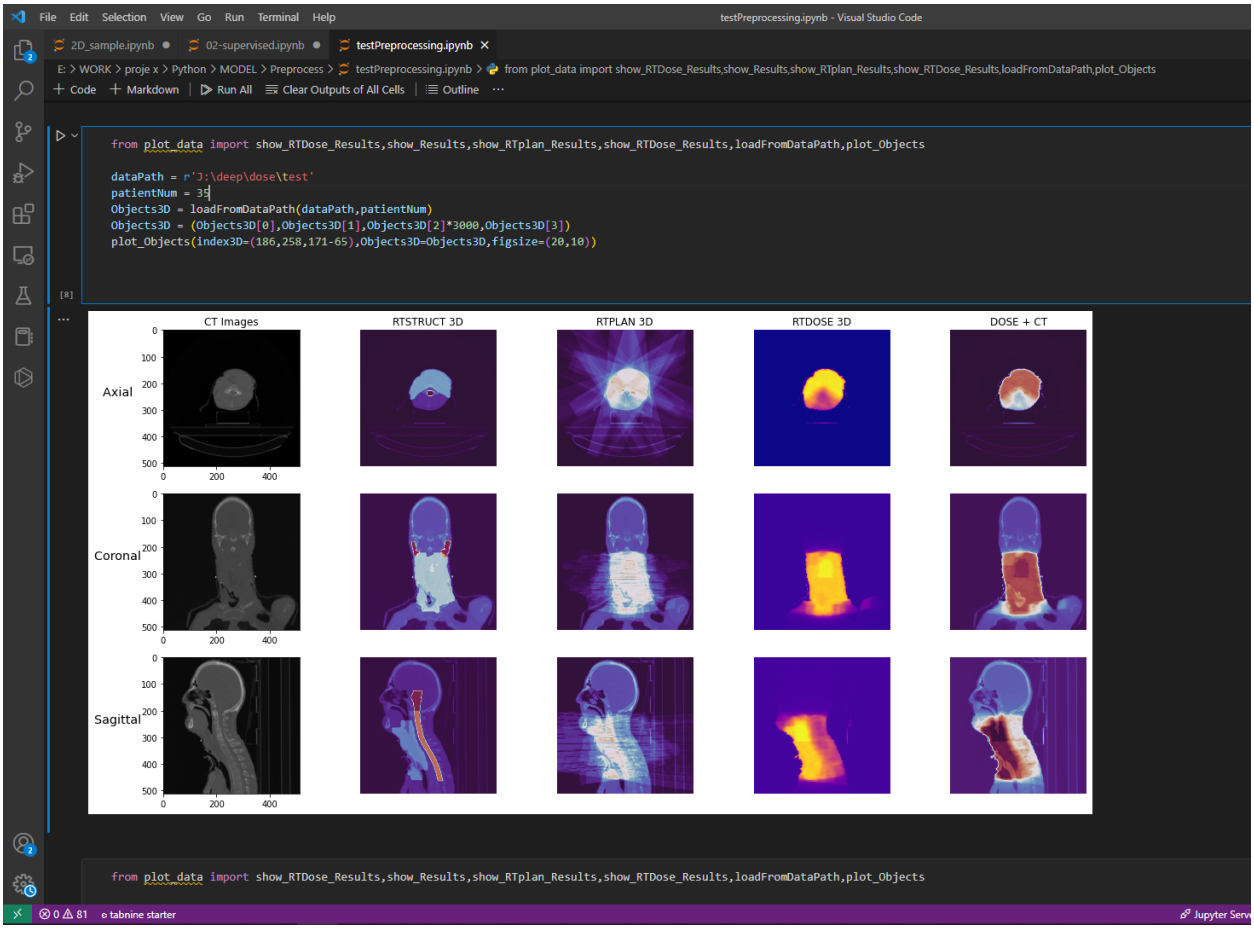

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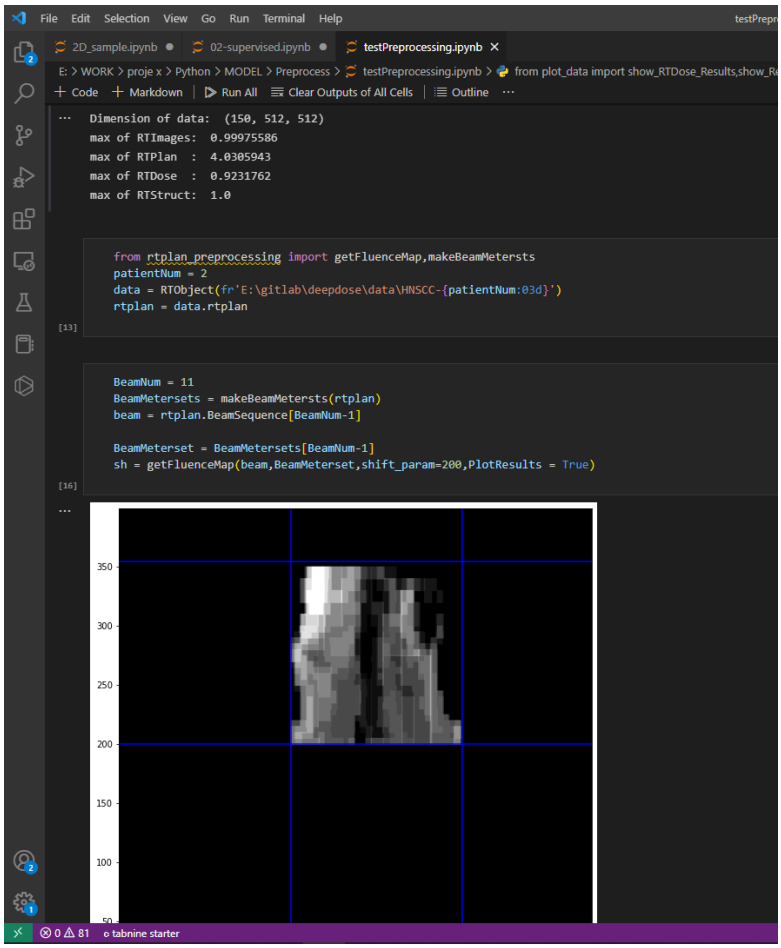
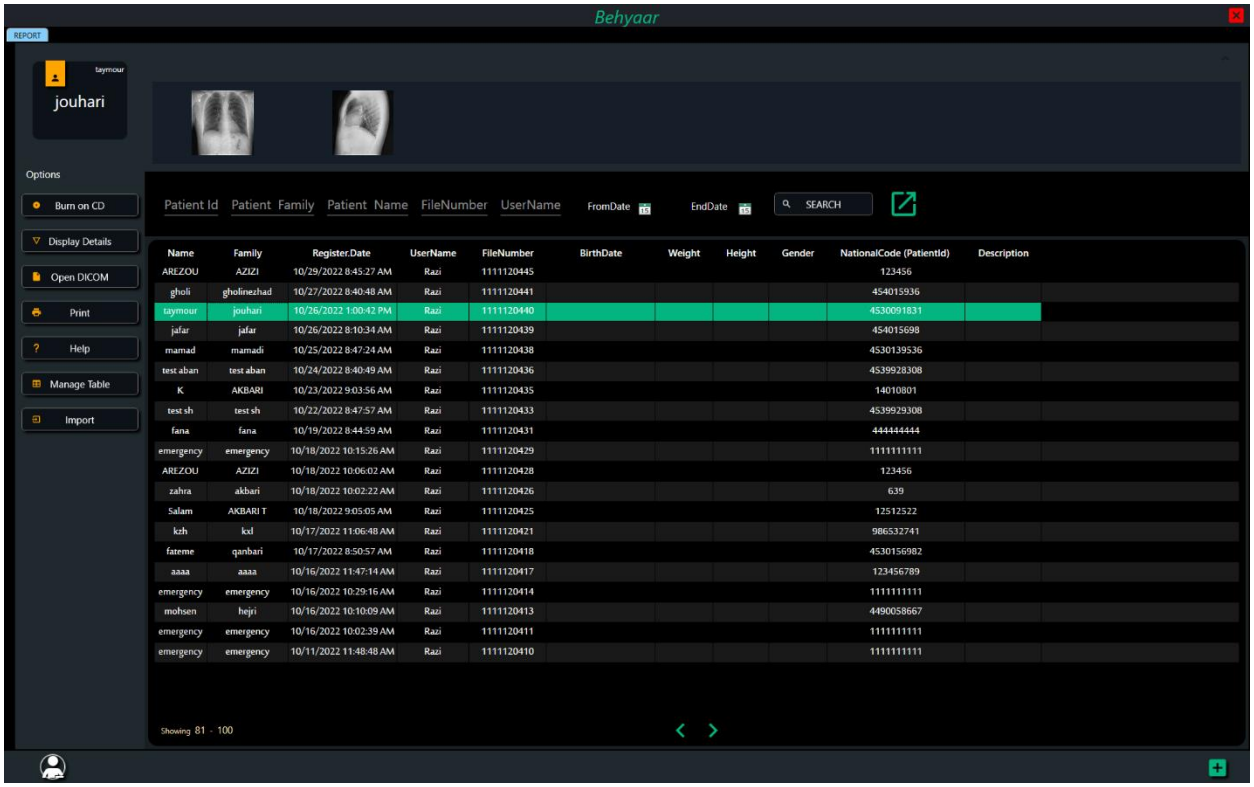
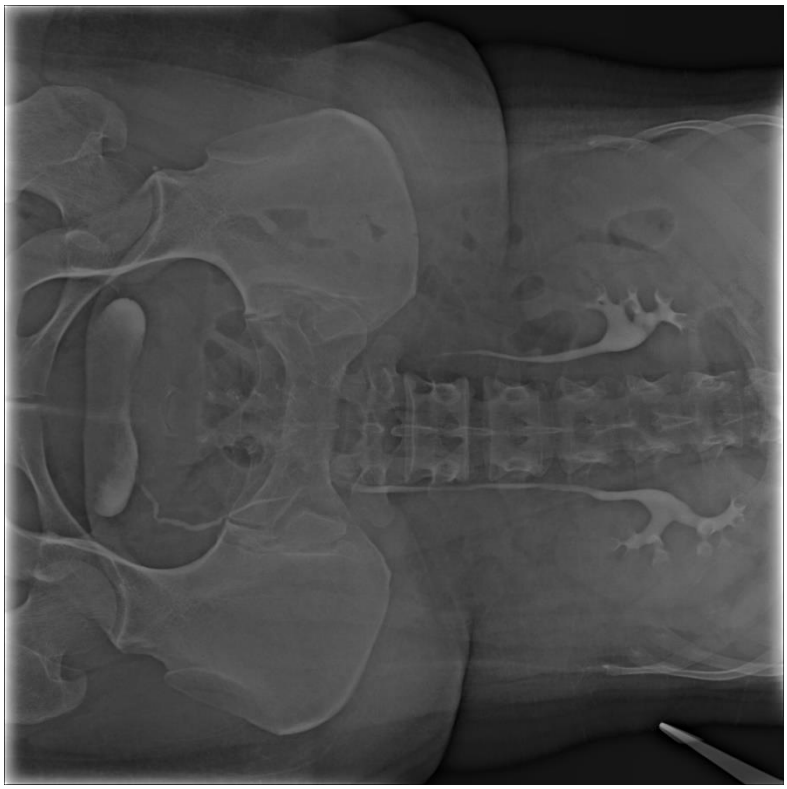


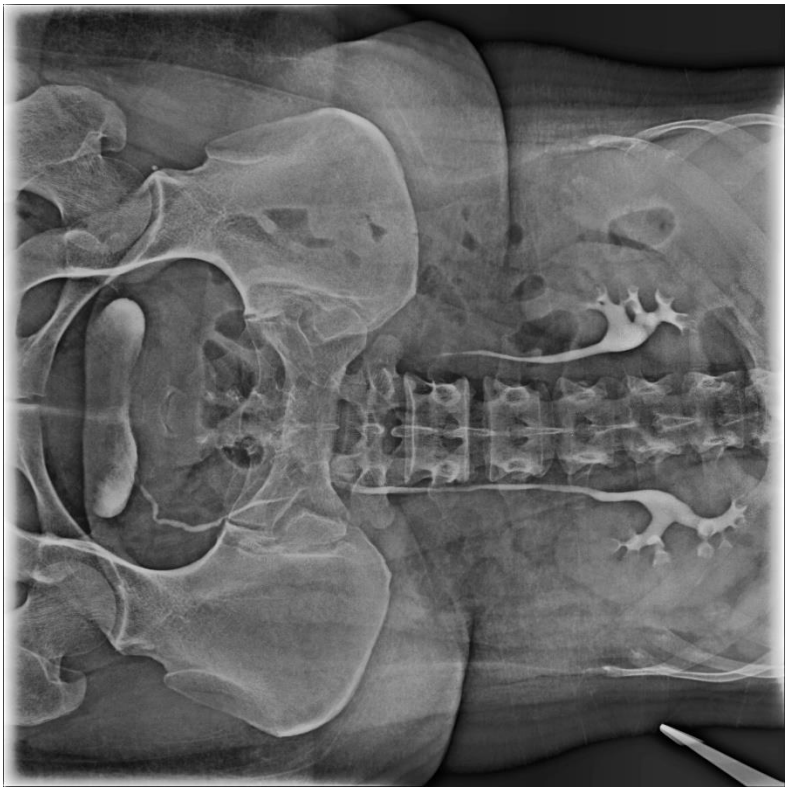
4. Radiology Software & Enhancements:

Abbas Mazrouei Sebdani





‘Before Enhancement’



‘After Enhancement’

5. Cargo Scanner Software

File Edit Selection View Go Run Terminal Help

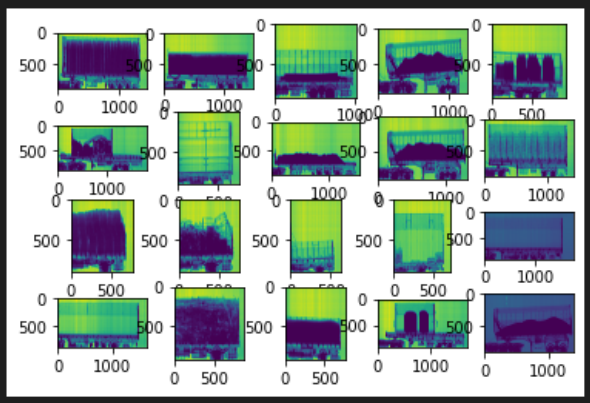
2D_sample.ipynb ● 3D_sample.ipynb ● w-net.ipynb ● show some trucks.ipynb ●

E: > WORK > ALL > dualReadings > code W-net > show some trucks.ipynb > from PIL import Image

+ Code + Markdown | Run All | Clear Outputs of All Cells | Outline ···

```
idx = 50
for i in range(1,21,1):
    im_h = Image.open(os.path.join(direc,'{}/HighImageMain.tiff'.format(idx+i)))
    imarray_high = normilize(np.array(im_h))
    plt.subplot(4,5,i)
    plt.imshow(imarray_high)
```

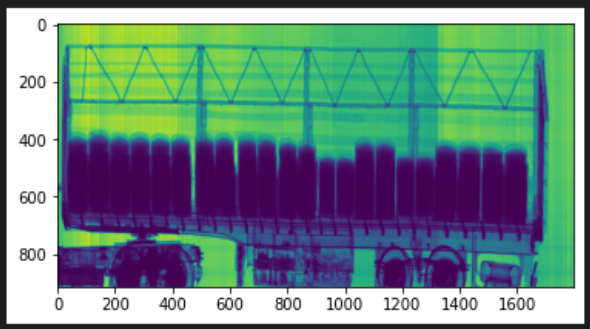
[13]



```
im_h = Image.open(os.path.join(direc,'{}/HighImageMain.tiff'.format(4588)))
imarray_high = normilize(np.array(im_h))
plt.imshow(imarray_high)
```

[19]

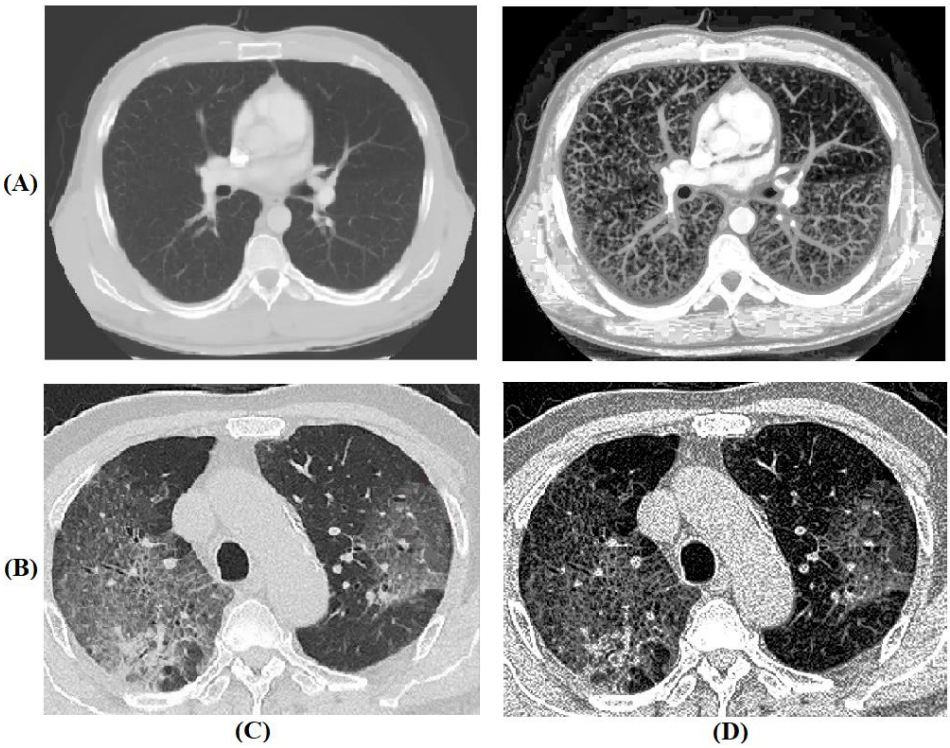
```
<matplotlib.image.AxesImage at 0x24b15542a60>
```

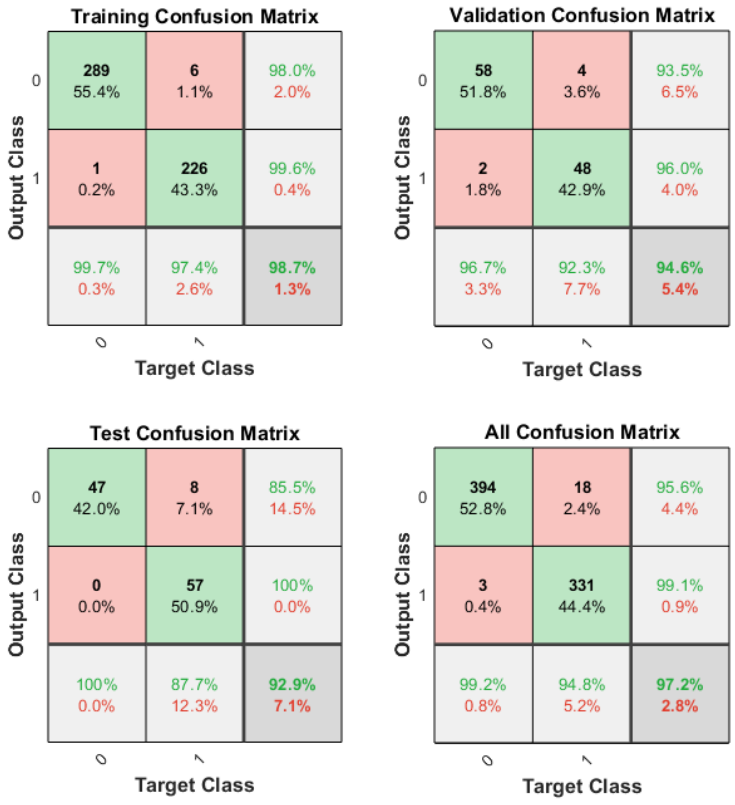


```
import tensorflow as tf
print(tf.__version__)
tf.config.list_physical_devices()
```

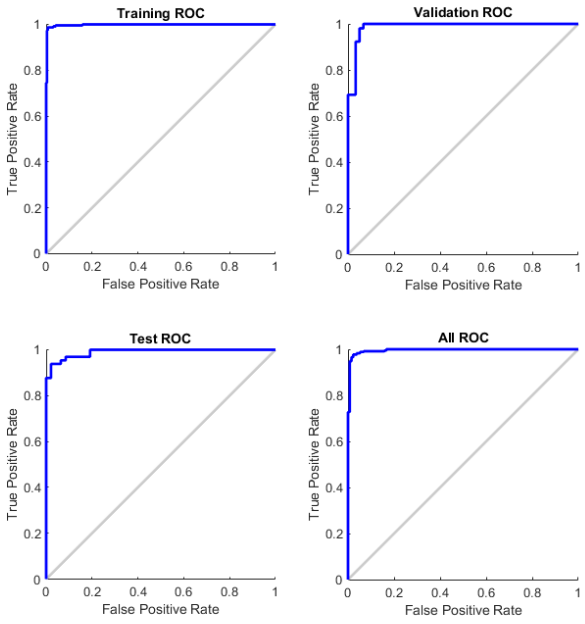
⊗ 4 ⚠ 71 ⌾ tabnine starter

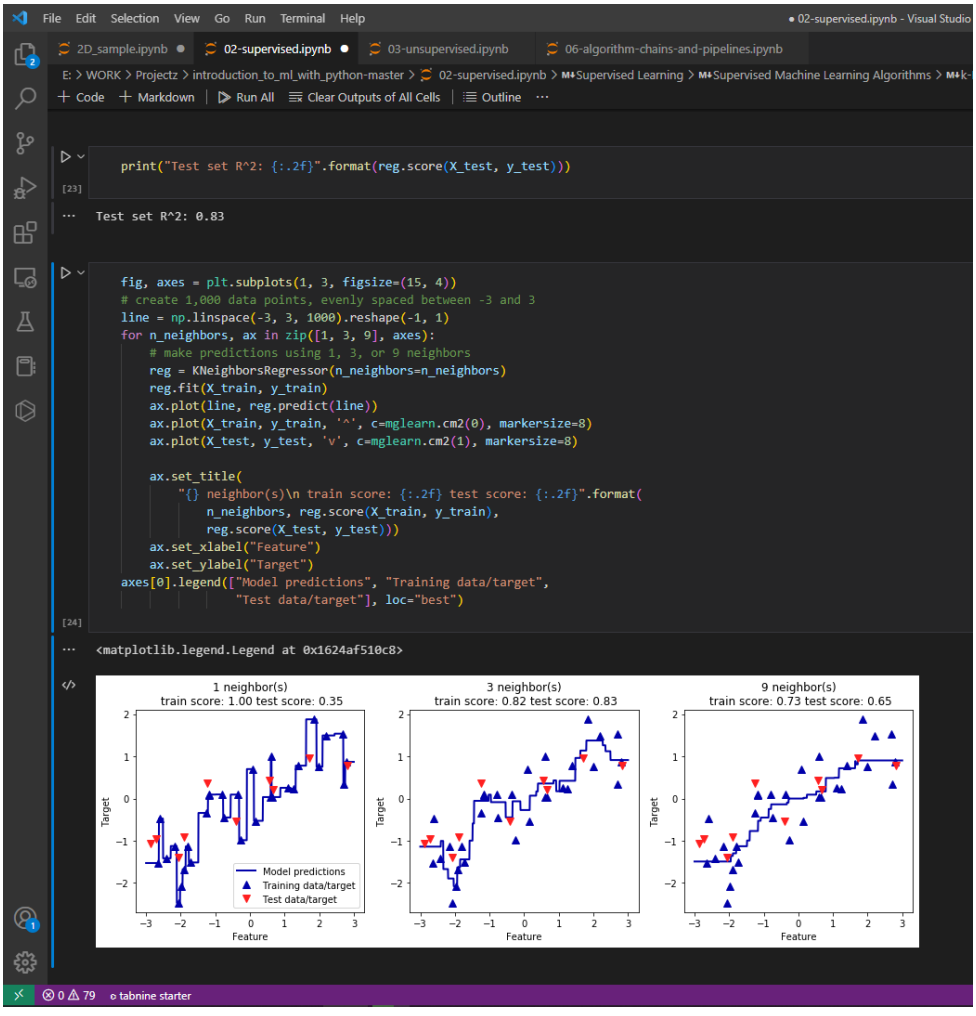
6. COVID-19 Diagnosis



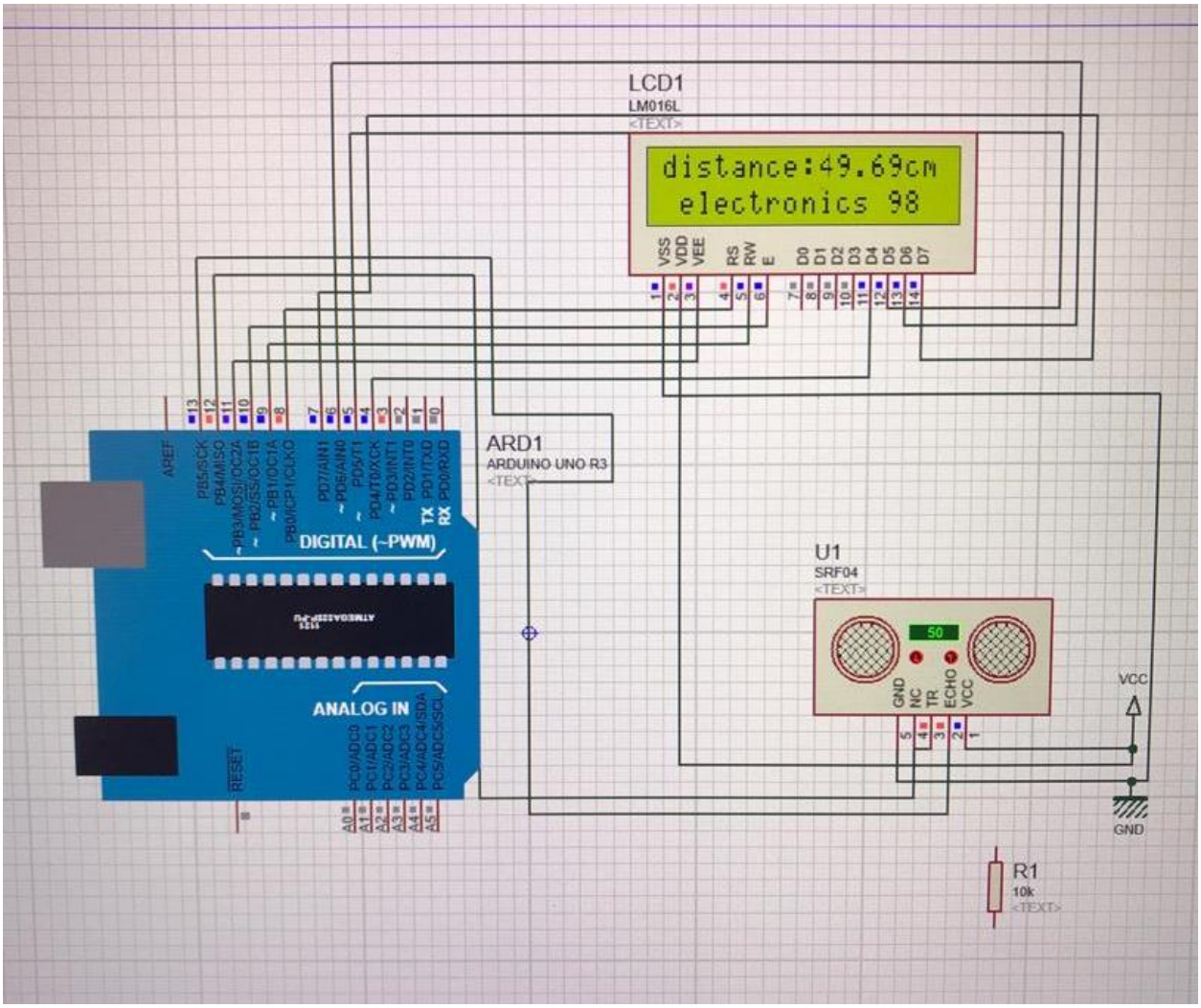


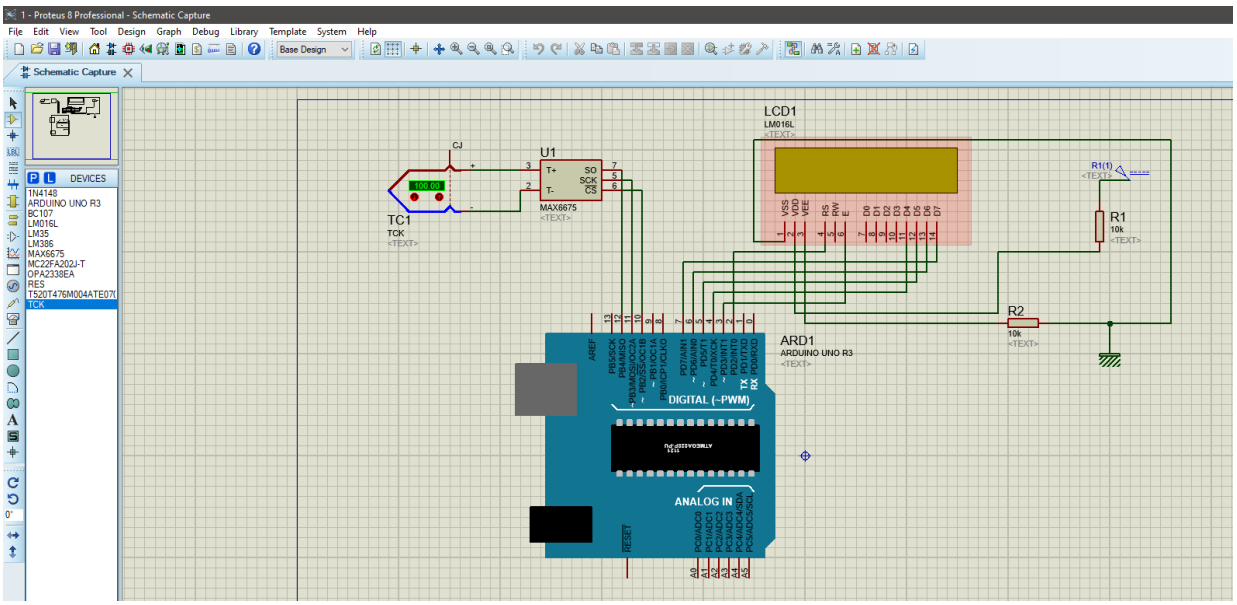
Abbas Mazrouei Sebdani





7. Proteus:


LCD1
LM016L
distance:49.69cm
electronics 98
ARD1
ARDUINO UNO R3
DIGITAL (~PWM)
ANALOG IN
U1
SRF04
GND
NC
TR
ECHO
VCC
R1
10k


1 - Proteus 8 Professional - Schematic Capture
LCD1
LM016L
U1
MAX6675
TC1
ARD1
ARDUINO UNO R3
DIGITAL (~PWM)
ANALOG IN
R1
10k
R2
10k

Abbas Mazrouei Sebdani