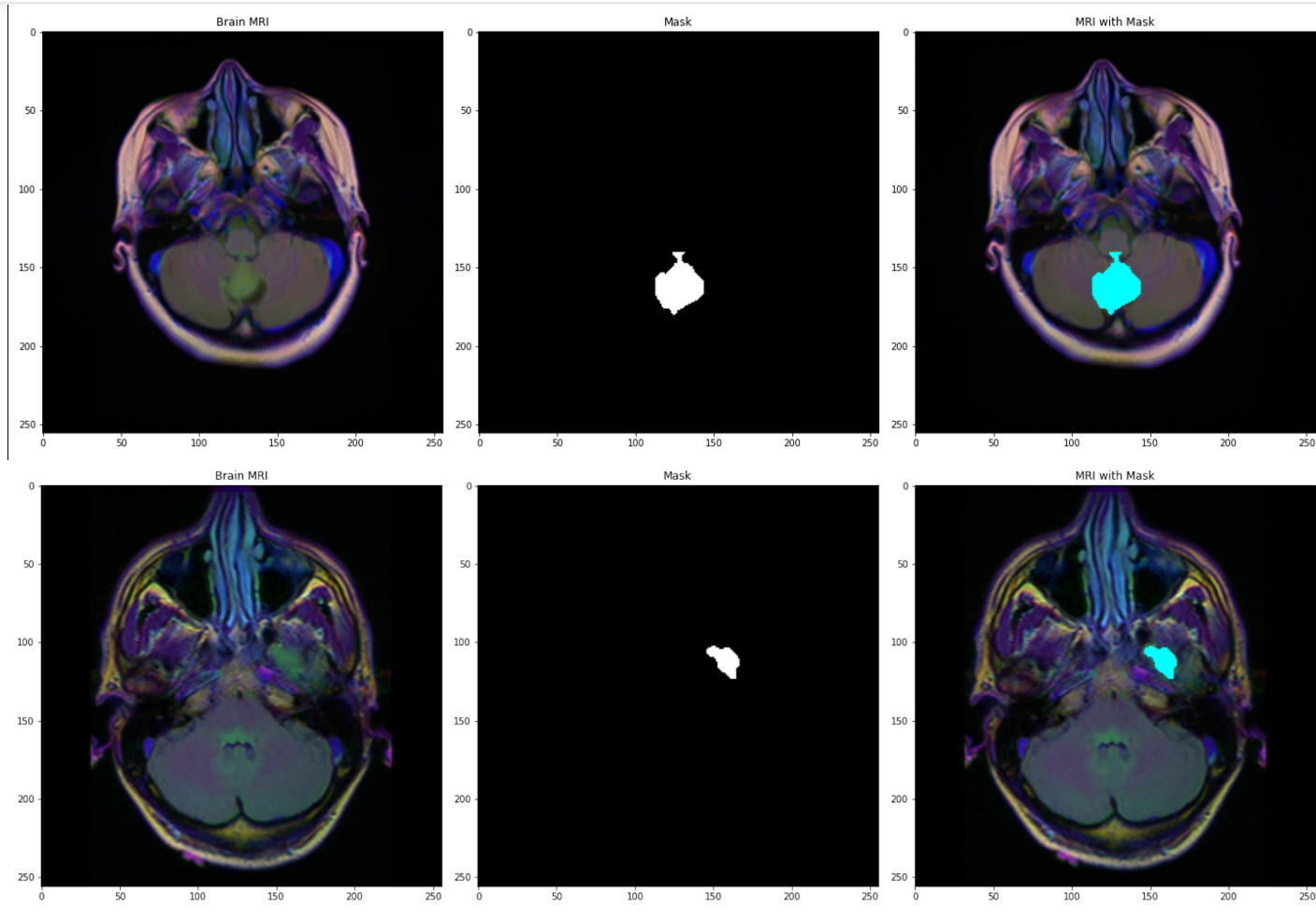# Brain Tumor Semantic Segmentation Using ResUNet

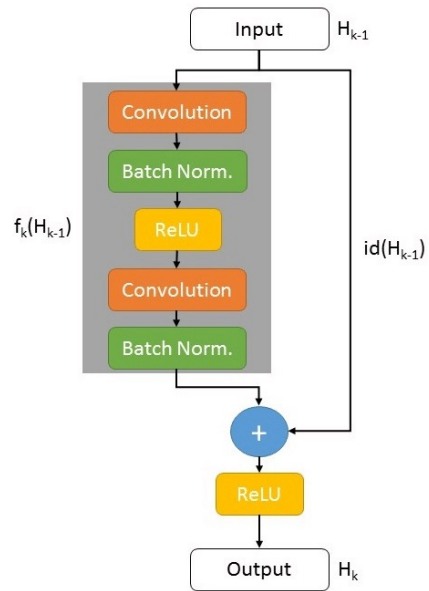Opt-in: Segmentation/Detection Application
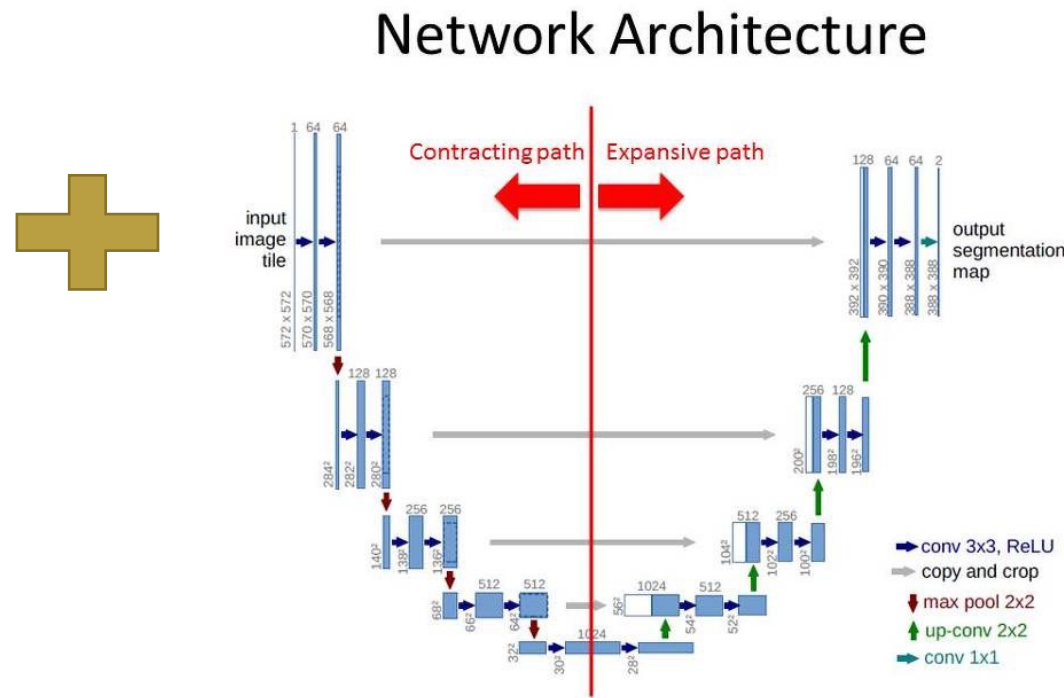
Nghi Huynh

Objective: Semantic Segmentation

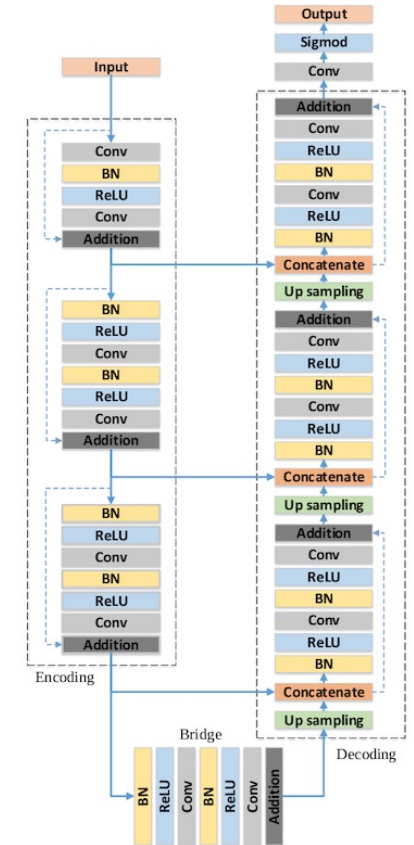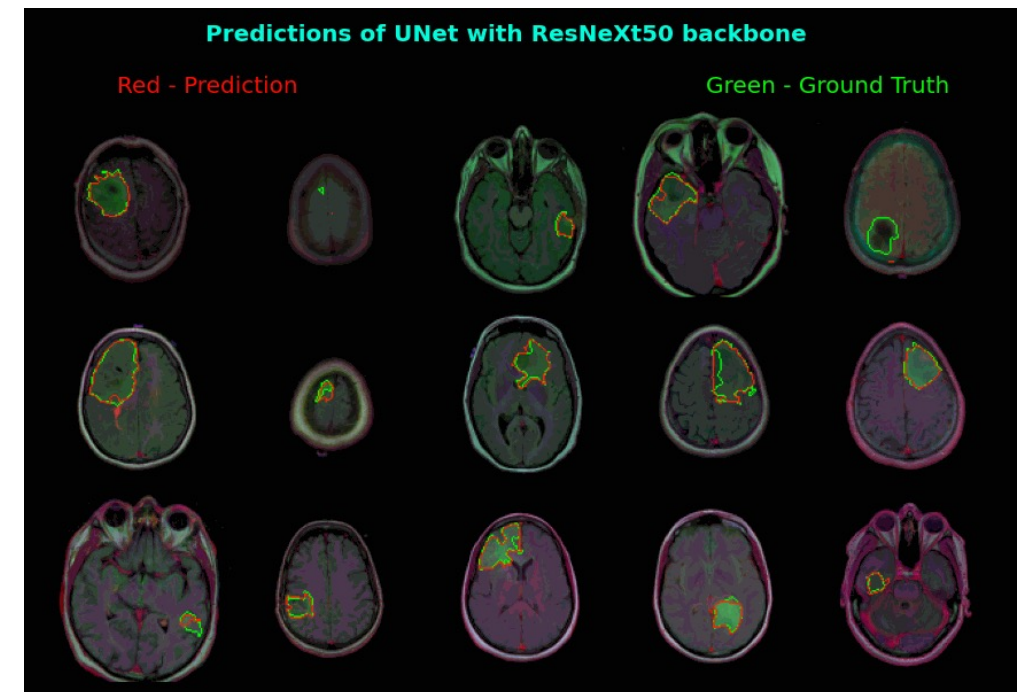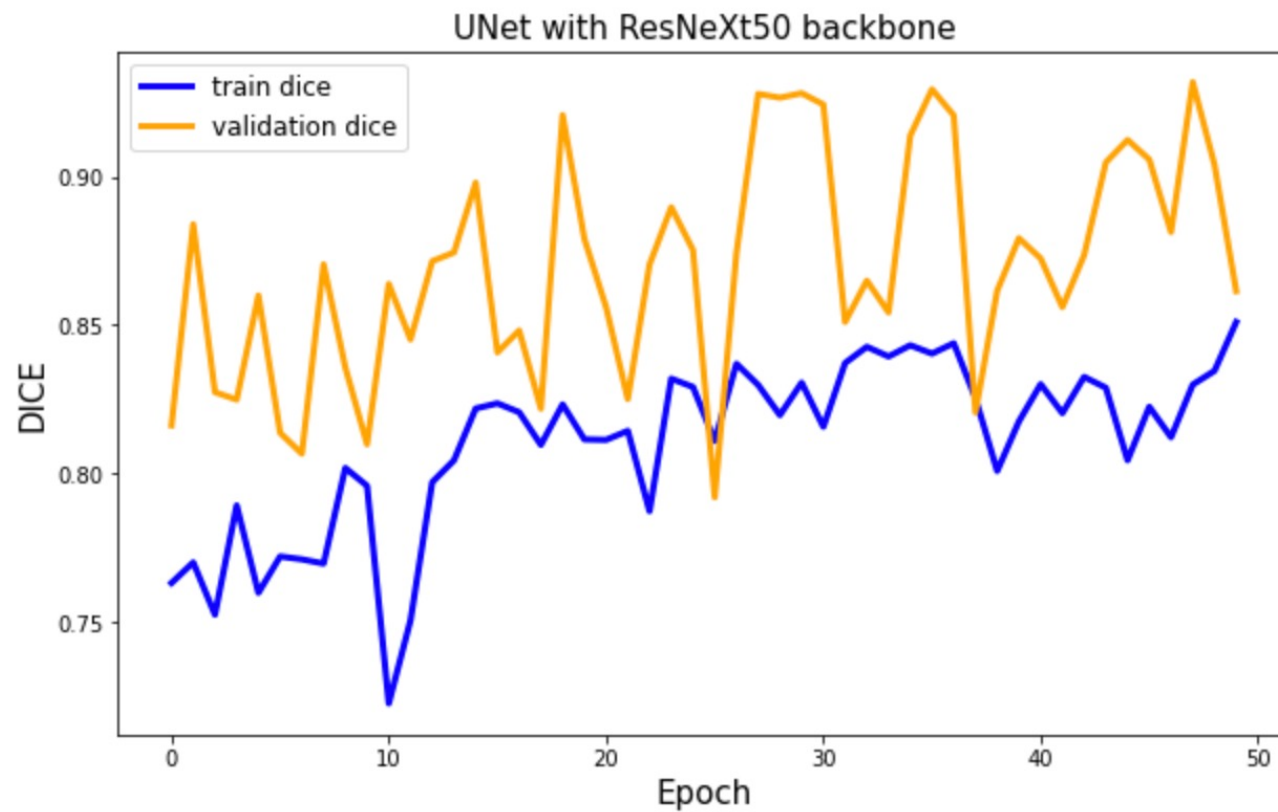# Innovation: UNet with Res-Blocks

Res-blocks

UNet

ResUNet

Functionality:

- To segment a tumor from a brain image
- To detect if a person has a brain tumor or not
- To facilitate a diagnosis process

Results

Future plans:

- Fine-tuning hyperparameters for higher accuracy

- Training on larger dataset

- Embedding the ResUNet architecture to a multimodality model to predict a tumor grade and a patient's survival rate.

- Deploying my model on Heroku for a more interactive environment

References:

- https://idiotdeveloper.com/what-is-resunet/
- https://zhuanlan.zhihu.com/p/65398511
- https://www.researchgate.net/figure/Example-of-residual-block-in-ResNet_fig2_310953119

Thanks for listening