First Page (Basic Information)

Abstract (Brief Summary)

List of Abbreviation

Acknowledgements

Content

1. Introduction
   1. Project Overview (Project introduction, historic background(past & now(ct machine learning)) and patient issues)
   2. Project Aims (GUI & Segmentation)
   3. Related Work
2. Background Knowledge
   1. Medical Image Introduction(CT, dicom, nifti)
   2. Algorithms for Liver Segmentation
   3. Algorithms for Liver Tumour Segmentation
   4. Convolutional Neural Network
   5. CNN
   6. FCN
   7. U-Net
      1. Cascaded U-Net
3. Design Development
   1. Prior Project Setup
   2. GUI Design
      1. GUI Backend Design (comprise fcn1 fcn2…)
      2. GUI Frontal Design (show how we embed the backend into frontal)
   3. Segmentation Implementation Design
      1. Pass
      2. Pass
4. Results
   1. GUI Function Implemental Results
      1. CT Image Display in Three Planes
      2. Cursor Detecting (relate the coordinates in 3 planes)
      3. Region of Interest
      4. Contrast Adjustment Function(if enough time )
   2. Segmentation Results
      1. Liver Segmentation
      2. Liver Tumour Segmentation
5. Discussion
   1. Limitations (GUI, Algorithms…)
   2. Further Improvements
6. Conclusion

Bibliography

Appendix

List of Figures