



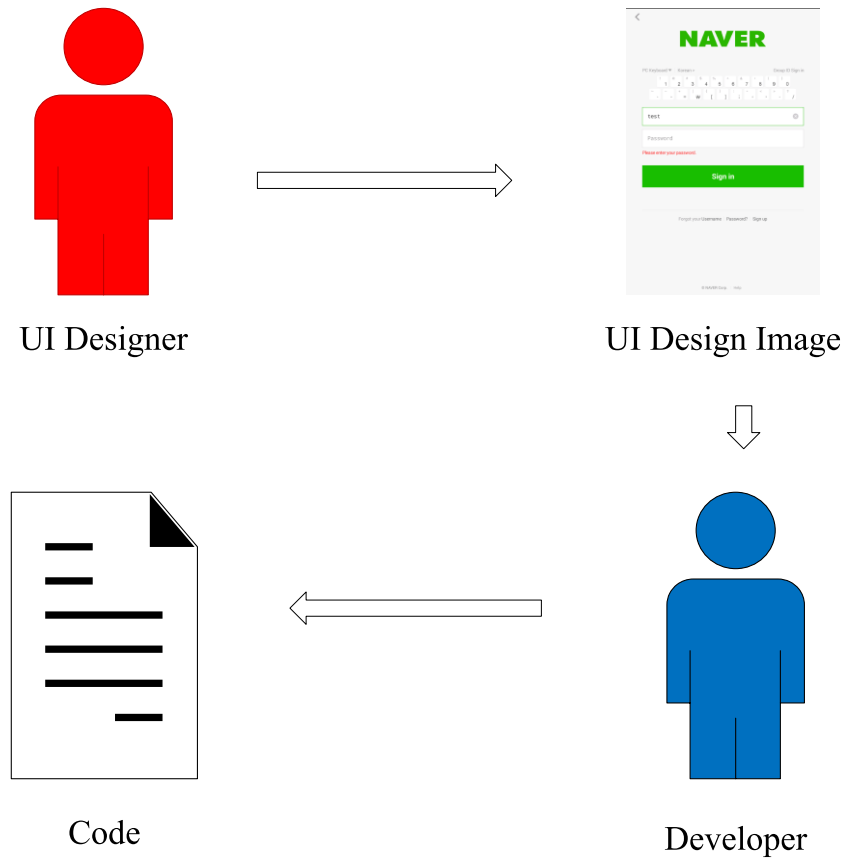
UI Design to Code Skeleton

COMP4560

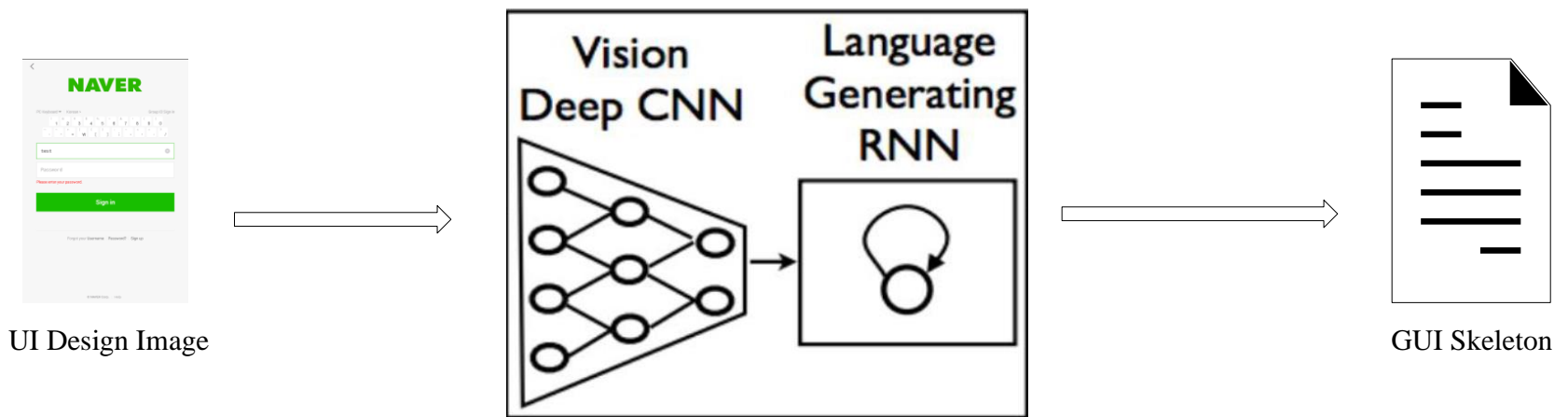
Supervisor: Dr Zhenchang Xing

Yuchen Li

Background



Introduction

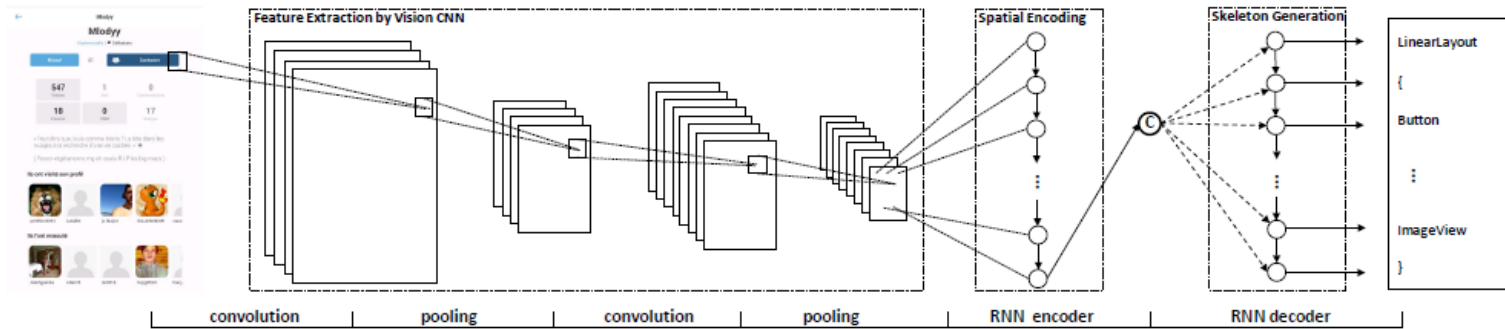


GUI skeleton

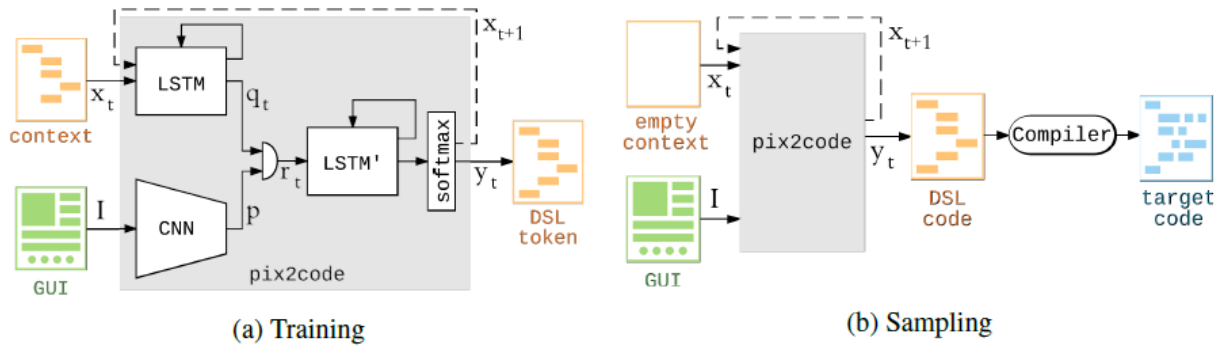


```
stack {  
  row {  
    label, switch  
  }  
  row {  
    label, btn-add  
  }  
  row {  
    label, slider, label  
  }  
  row {  
    img, label  
  }  
}  
footer {  
  btn-more, btn-contact, btn-search, btn-download  
}
```

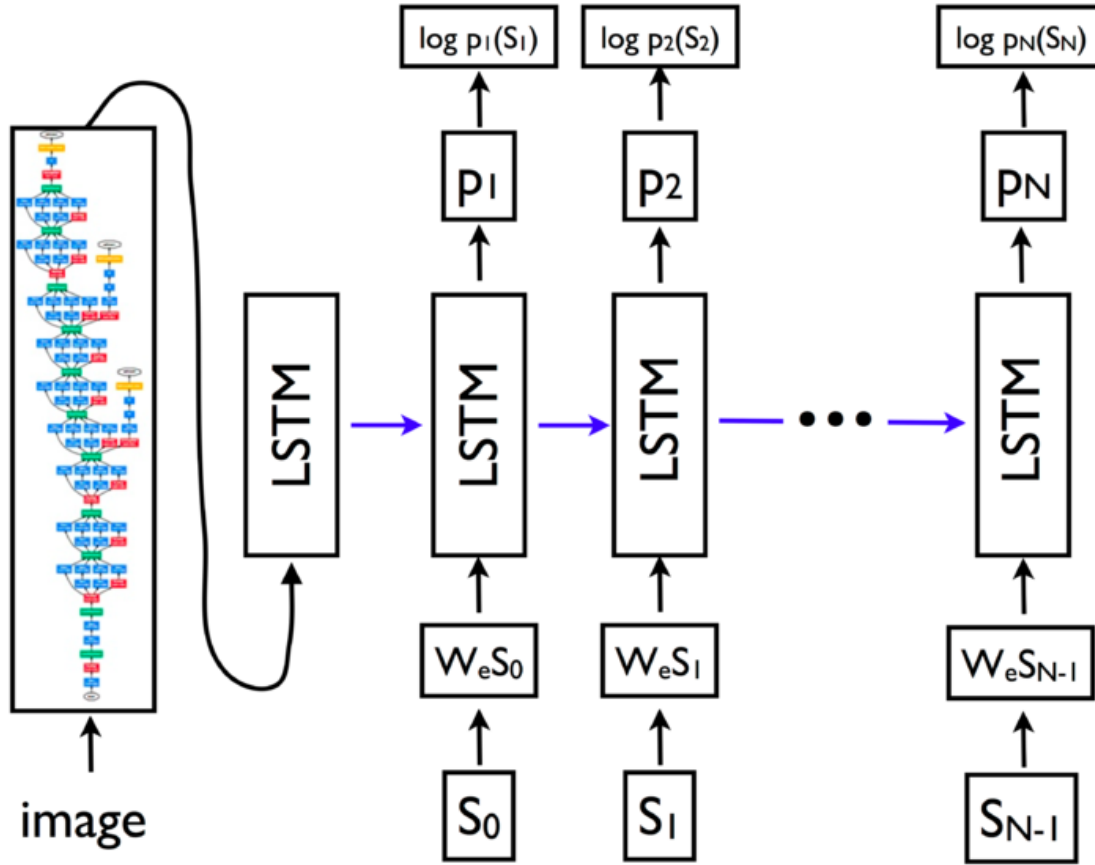
UI2code



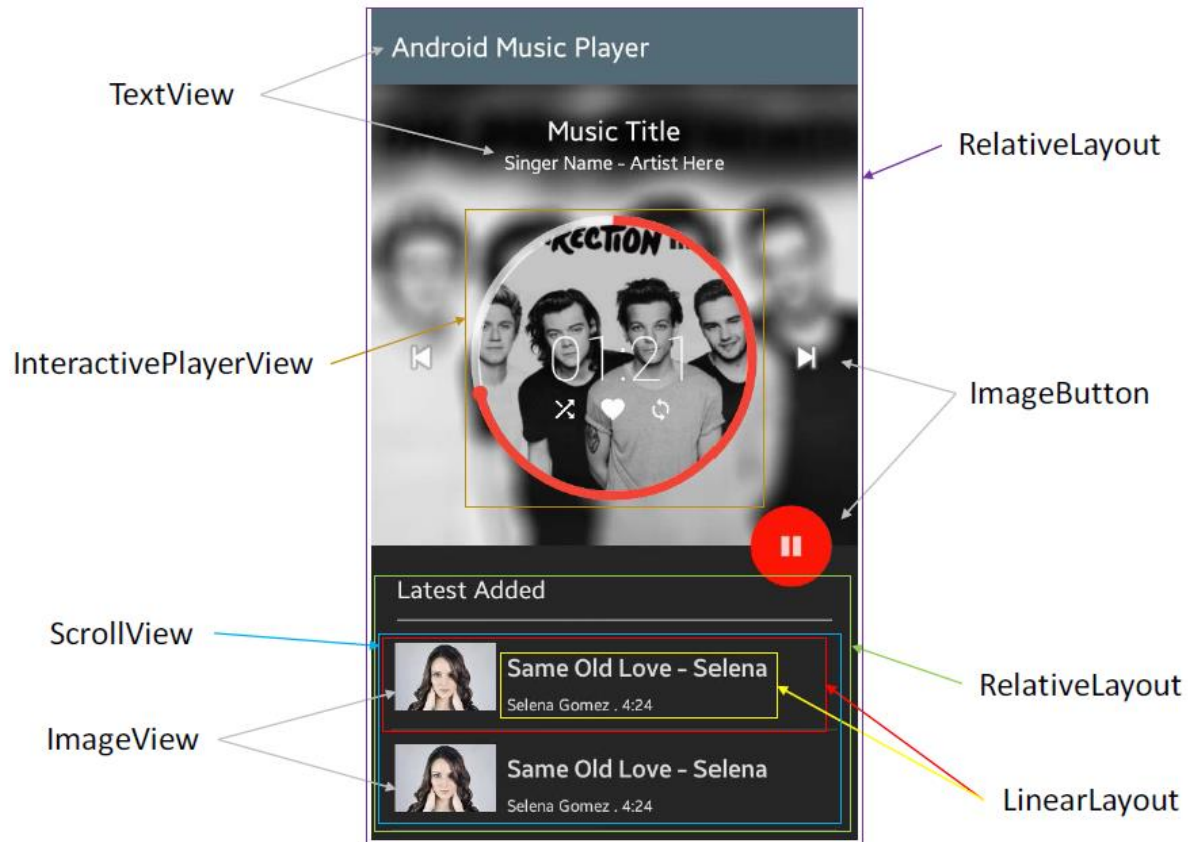
Pix2code



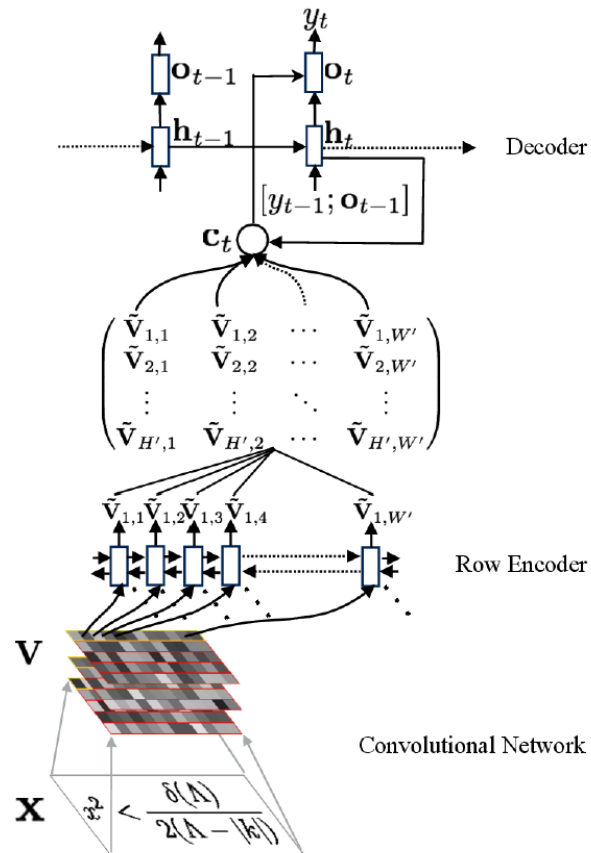
Im2txt



Alignment



Attention mechanism



Thanks for your watching

Reference:

Chen, C., Su, T., Meng, G., Xing, Z. and Liu, Y., 2018, May. From UI design image to GUI skeleton: a neural machine translator to bootstrap mobile GUI implementation. In *Proceedings of the 40th International Conference on Software Engineering* (pp. 665-676). ACM.

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Vinyals, O., Toshev, A., Bengio, S. and Erhan, D., 2017. Show and tell: Lessons learned from the 2015 mscoco image captioning challenge. *IEEE transactions on pattern analysis and machine intelligence*, 39(4), pp.652-663.

Kanervisto, A., 2016. im2latex-100k, arXiv: 1609.04938.