



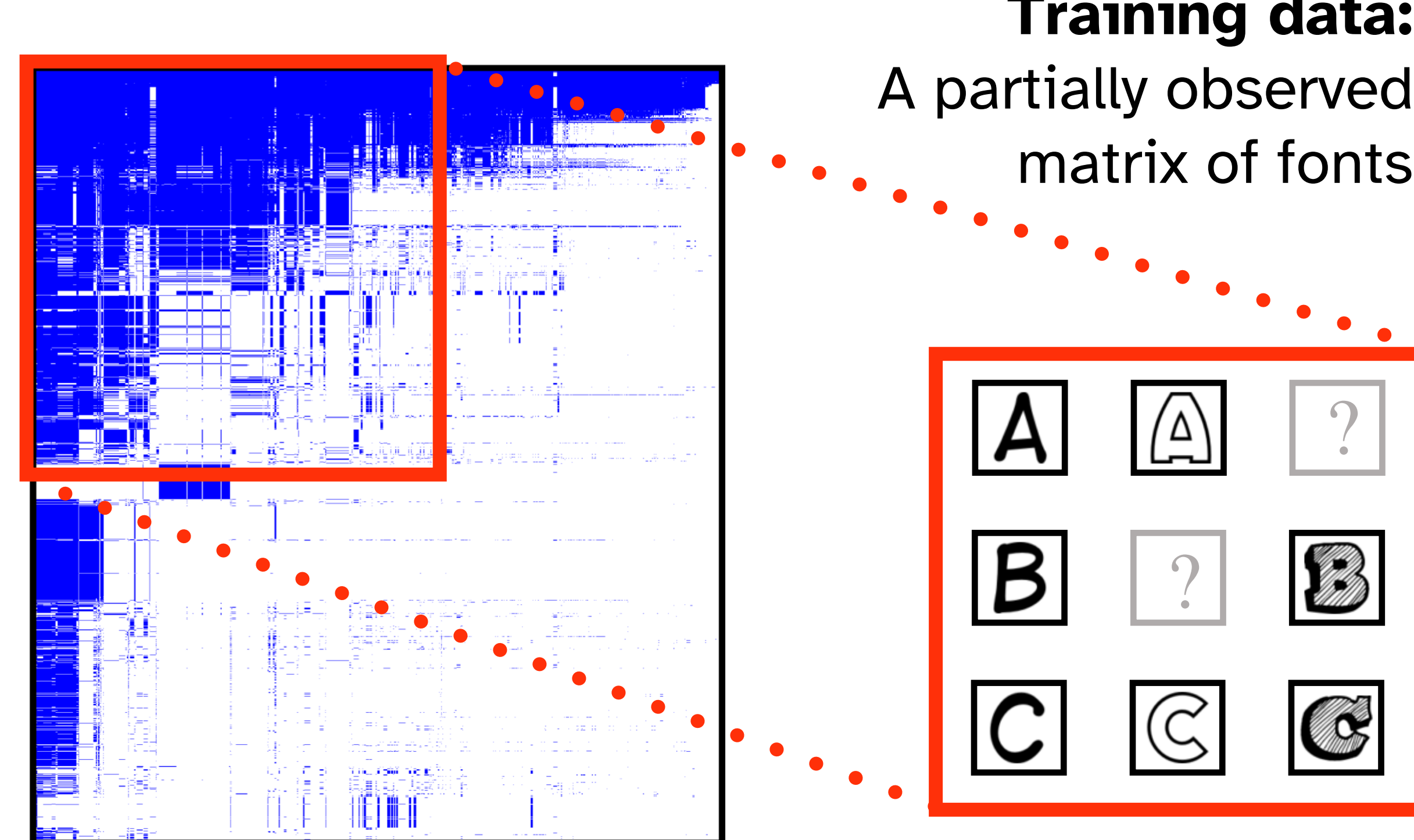
# Scalable Font Reconstruction with Dual Latent Manifolds

Nikita Srivatsan, Si Wu, Jonathan T. Barron, Taylor Berg-Kirkpatrick  
nsrivats@cmu.edu, siwu@ccs.neu.edu, barron@google.com, tberg@eng.ucsd.edu

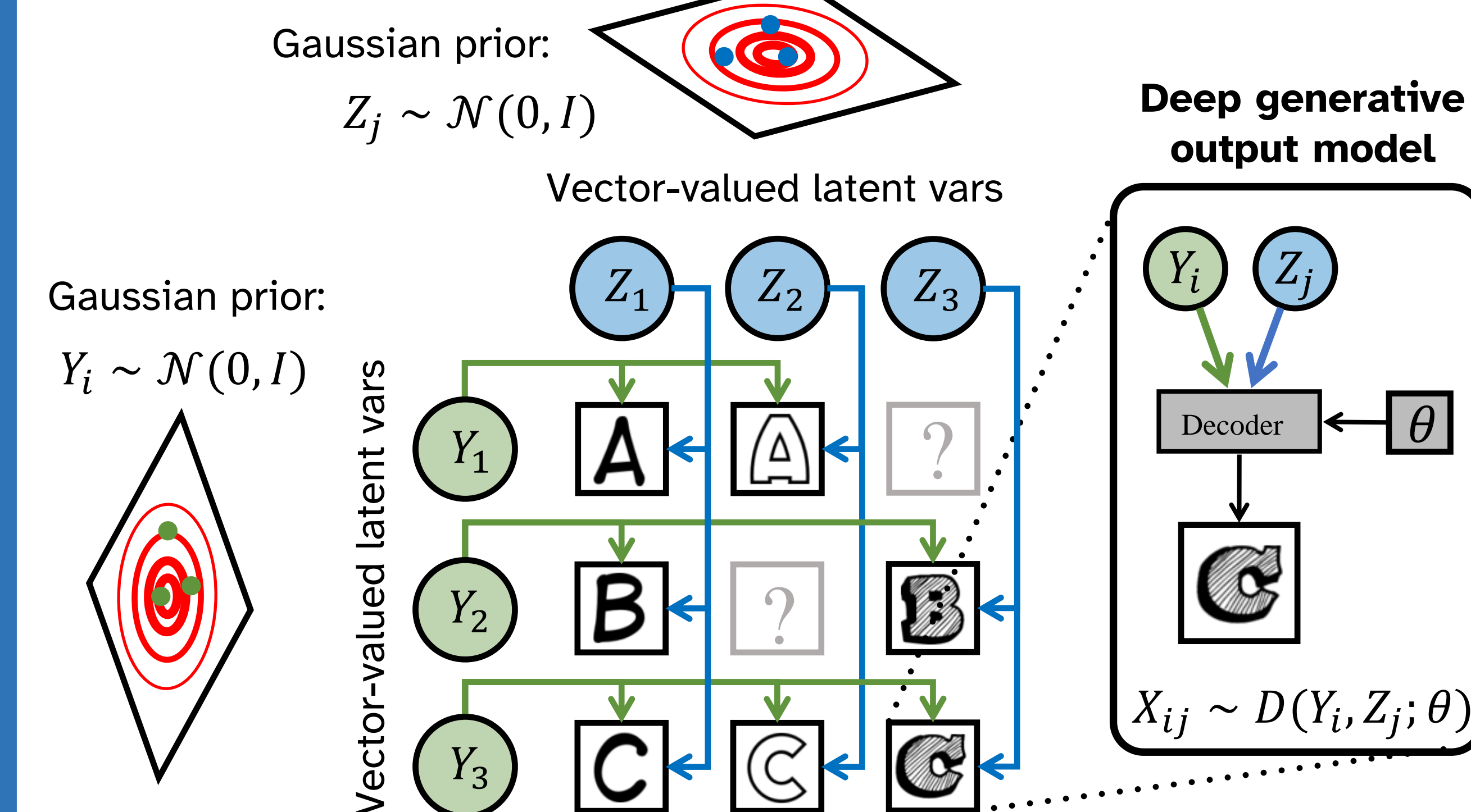
## Summary

We propose a deep generative model that performs typography analysis and font reconstruction by learning disentangled manifolds of both font style and character shape. Our approach enables us to massively scale up the number of character types we can effectively model and generalize to characters that were not observed during training time, an important task given the relative sparsity of most fonts.

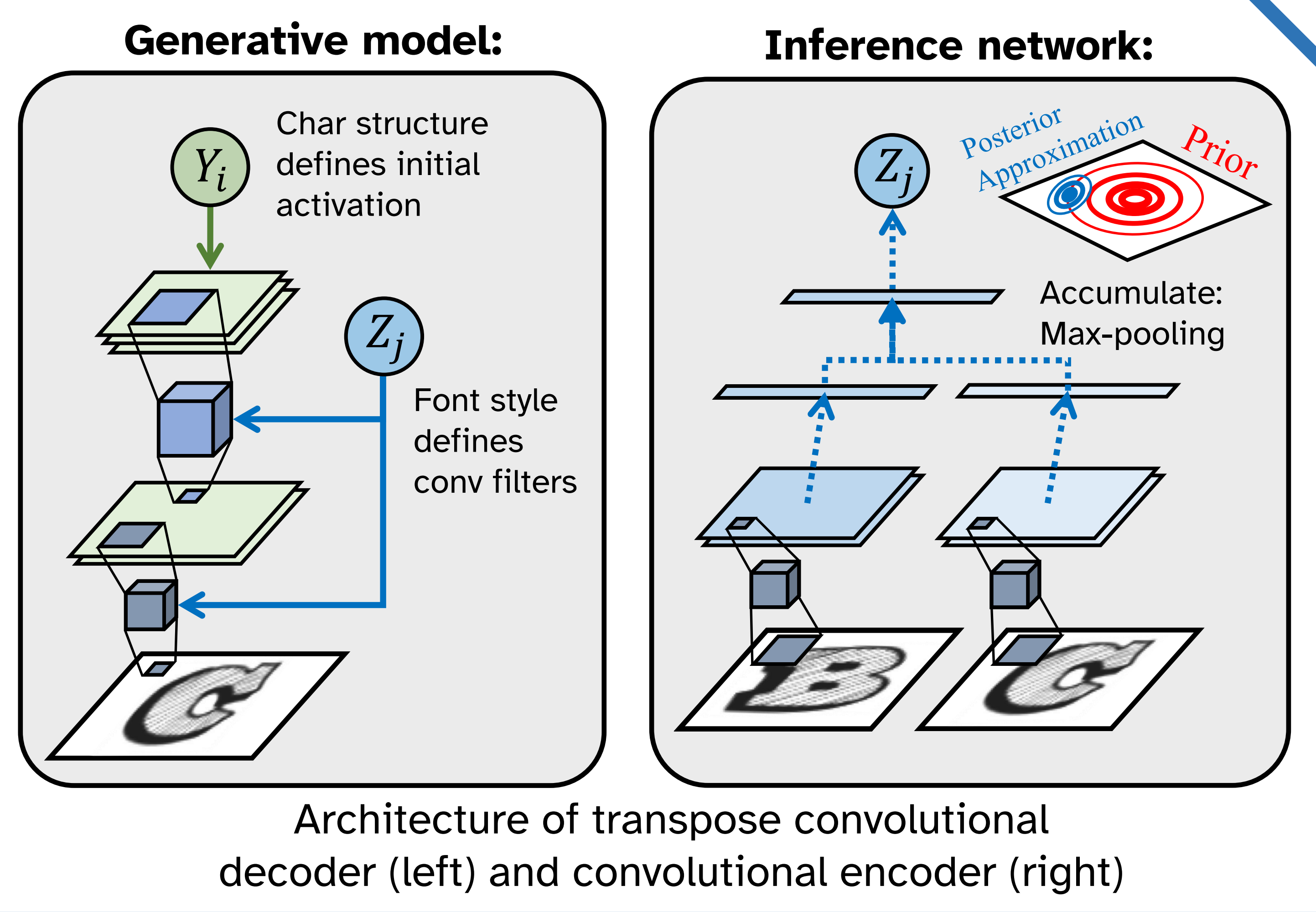
## Google Fonts



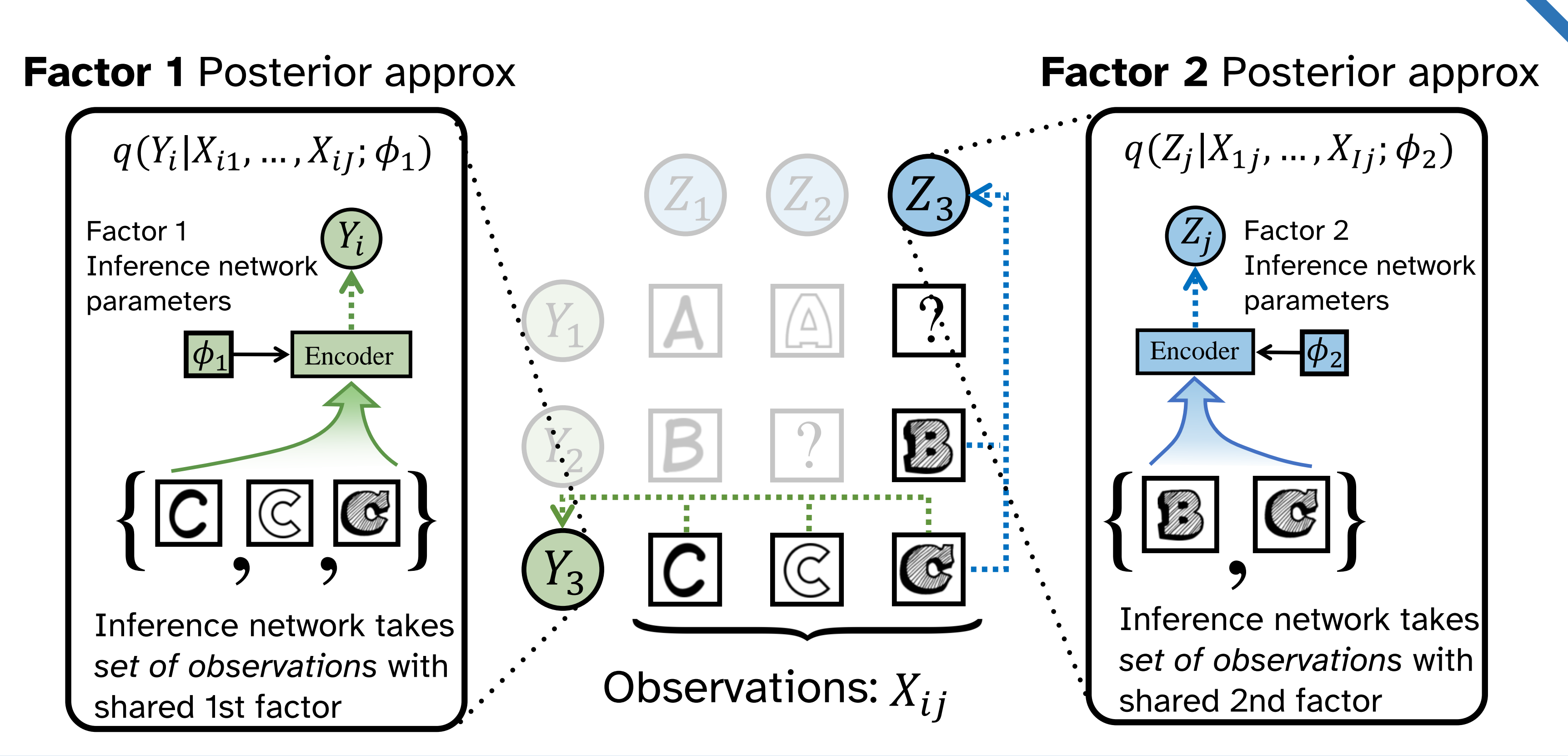
## Model Layout



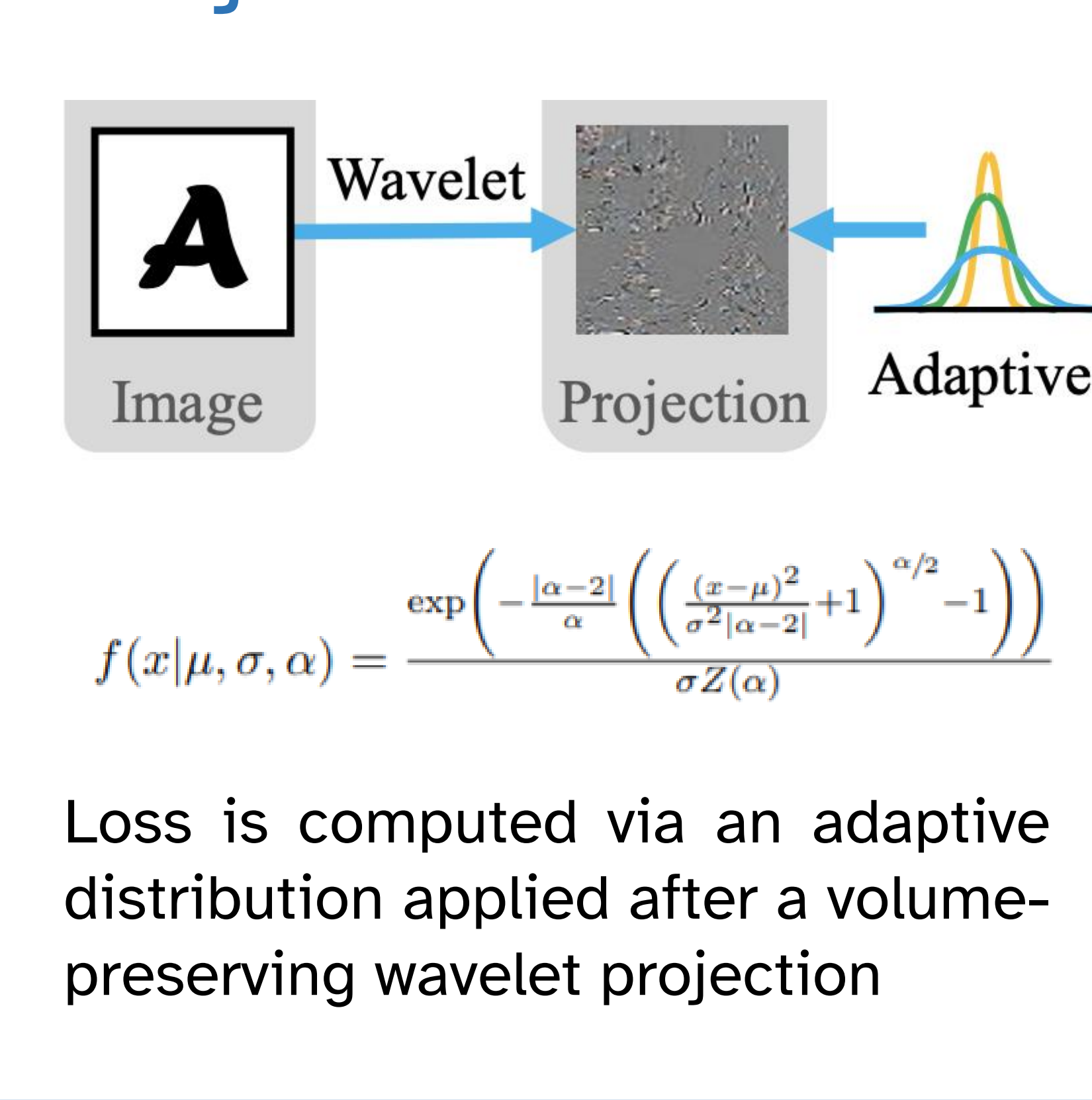
## Inductive Bias



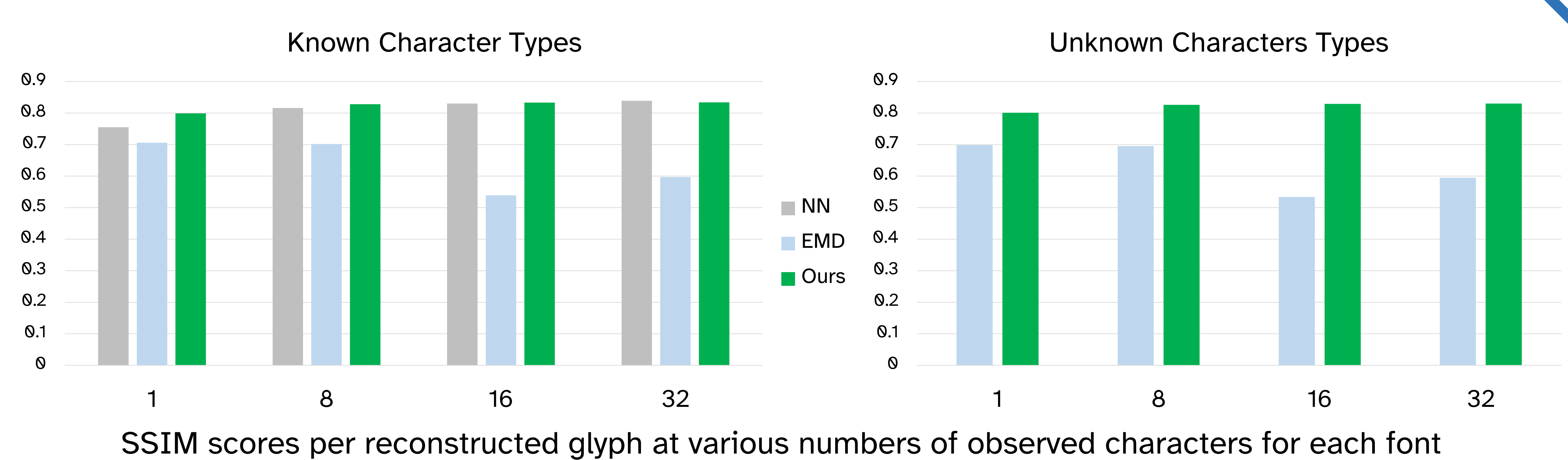
## Factored Inference



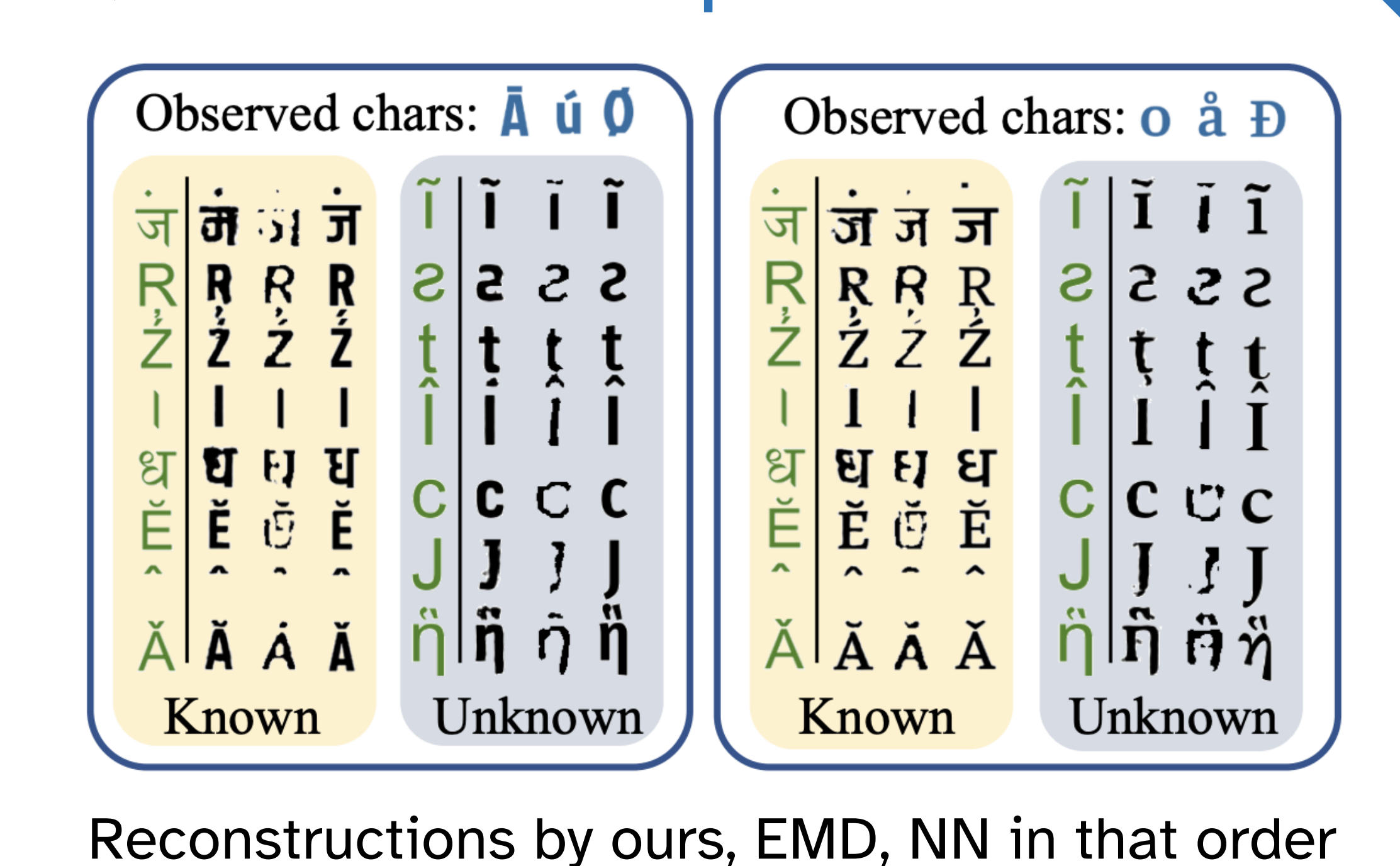
## Projected Loss



## Font Reconstruction Results



## Qualitative Inspection



## Interpolation

