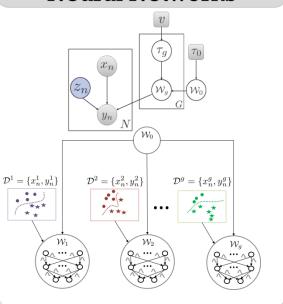
## **Hierarchical Bayesian Neural Networks for Personalized Classification**

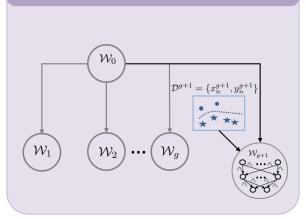
Ajjen Joshi<sup>1</sup>, Soumya Ghosh<sup>2</sup>, Margrit Betke<sup>1</sup>, Hanspeter Pfister<sup>3</sup>
<sup>1</sup>Boston University, <sup>2</sup>IBM T.J. Watson Research Center, <sup>3</sup>Harvard University

- We develop hierarchical Bayesian neural networks to perform personalized classification.
- We utilize the inferred posterior over the weights to drive an active learning procedure to personalize a pre-trained model to new groups.
- We test our method on a personalized gesture recognition task and demonstrate state-of-the-art results on the MSRC-12 gesture recognition dataset.

## Hierarchical Bayesian Neural Networks



## Personalization



## **Gesture Recognition**

