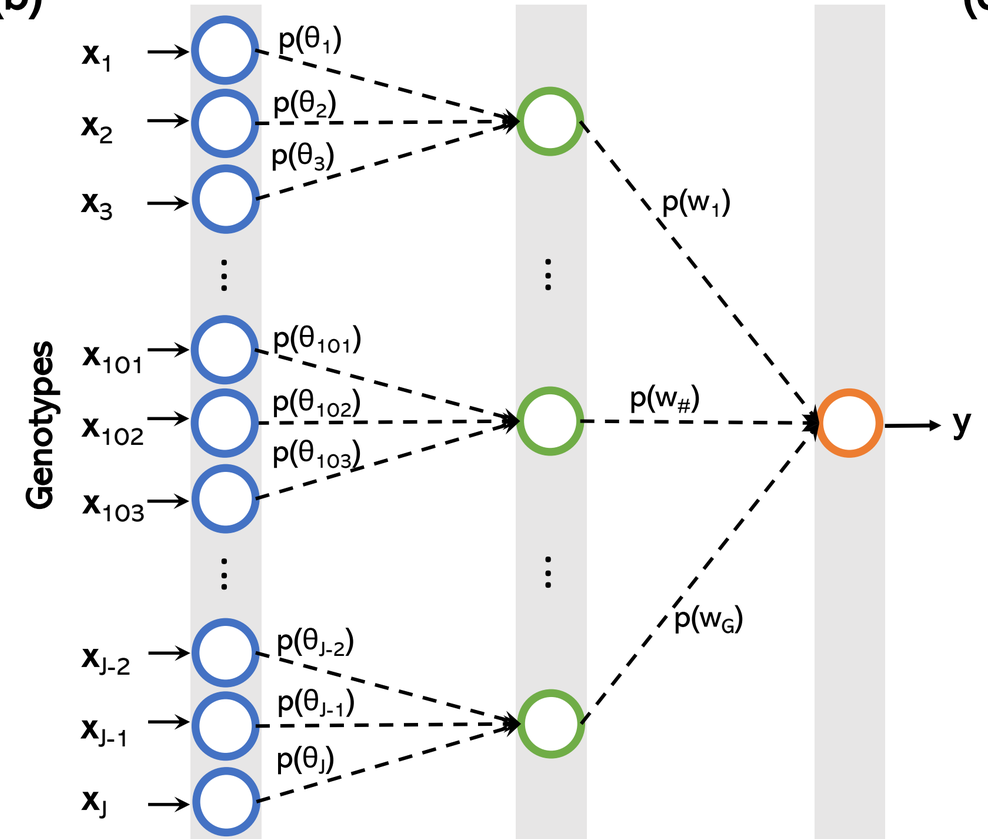
(a)

SNP-Set	Chr	Start	End	SNPs
S_1	1	69090	70008	x_1, x_2, x_3
S_2	1	3676581	368597	x_4, x_5, x_6
⋮				
$S_{\#}$	6	29200	351355	$x_{101}, x_{102}, x_{103}$
$S_{\#+1}$	6	391751	411443	$x_{104}, x_{105}, x_{106}$
⋮				
S_{G-1}	22	51195513	51237934	$x_{J-5}, x_{J-4}, x_{J-3}$
S_G	22	51205919	51222087	x_{J-2}, x_{J-1}, x_J

(b)



(c)

Full Model Specification:

$$\mathbf{y} = \sum_{g=1}^{G} h\left(\boldsymbol{X}_g \boldsymbol{\theta}_g + \mathbf{1} b_g^{(1)}\right) w_g + \mathbf{1} b^{(2)}$$

SNP-set Level Effects:

$$w_g \sim \pi_w \mathcal{N}(0, \sigma_w^2) + (1 - \pi_w)\delta_0$$

Hyper-prior Distributions:

$$\log(\pi_w) \sim \mathcal{U}(-\log(G), \log(1))$$

$$\sigma_w^2 \sim \text{Inv}-\text{Gamma}(u_w, v_w)$$

SNP-Level Effects:

$$\theta_j \sim \sum_{k=1}^{K} \pi_{\theta k} \mathcal{N}(0, \sigma_{\theta k}^2)$$

Hyper-prior Distributions:

$$\log(\pi_{\theta k}) \sim \mathcal{U}(-\log(J), \log(1))$$

$$\sigma_{\theta k}^2 \sim \text{Inv}-\text{Gamma}(u_\theta, v_\theta)$$