V1-like

Grayscale Input → Normalize → Filter → Threshold & Saturate → Pool → Normalize → Linear SVM
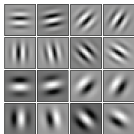
Multi-layer

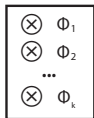Grayscale Input → Normalize → L1 → L2 → L3 → Linear SVM

Filter
$\otimes$ Φ_1
$\otimes$ Φ_2
...
$\otimes$ Φ_k

→ Threshold & Saturate → Pool → Normalize