svd from linearalgebra

ElementSets from MeshConnectivity

VertexOneRing from PointCloudNeighborhoods(M)

M : PointCloud
$x_i \in \mathbb{R}^3$

$V, E = \textit{ElementSets}(M)$
$\textit{Normal}(v) = vv_{*,3}$
   where
     $v \in V$
     $N = \textit{VertexOneRing}(v)$
     $\bar{p} = \dfrac{\sum_{n \in N} x_n}{|N|}$
     $d = \{x_v - \bar{p} \mid v \in N\}$
    $m_{i,*} = d_i$
   $u, \sum, vv = \text{svd}(m)$