Algorithm 18.1 *Supervised Principal Components.*

1. Compute the standardized univariate regression coefficients for the outcome as a function of each feature separately.

2. For each value of the threshold θ from the list $0 \leq \theta_1 < \theta_2 < \cdots < \theta_K$:

   (a) Form a reduced data matrix consisting of only those features whose univariate coefficient exceeds θ in absolute value, and compute the first m principal components of this matrix.

   (b) Use these principal components in a regression model to predict the outcome.

3. Pick θ (and m) by cross-validation.