Algorithm 1: Backfitting algorithm

1. Set $\hat{\beta}_0 = \bar{y}$ and $\hat{\mathbf{s}}_d = 0$ for $d = 1, \ldots, D$

2. for $d = 1, \ldots, D$ do

    1. Calculate partial residuals:

$$\mathbf{e}^d = \mathbf{y} - \hat{\beta}_0 - \sum_{k \neq d} \hat{\mathbf{s}}_d.$$

    2. Set $\hat{\mathbf{s}}_d$ equal to the result of smoothing $\mathbf{e}^d$ with respect to $\boldsymbol{x}_d$.

end

3. Repeat 2 until convergence.