EECS 16B CSM

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Logistics

- Pertinent facts
- Feedback: `https://forms.gle/8g1NcqqE4m1shkVx5`

Gram-Schmidt

$$\boldsymbol{p}_i = \boldsymbol{v}_i - \sum_{j \neq i} ([\boldsymbol{v}_i]^\top \boldsymbol{w}_j)\boldsymbol{w}_j \tag{1}$$

$$\boldsymbol{w}_i = \frac{\boldsymbol{p}_i}{\|\boldsymbol{p}_i\|} \tag{2}$$

- Turn basis into orthonormal basis
- Steps
  1. Subtract all $\text{proj}_{\boldsymbol{v}_i}(\boldsymbol{v}_n)$ for $i \neq n$
  2. Normalize result
  3. repeat for all vectors
- systematically removing the parallel component of every other vector
- cool GIF of GS