

$$\underline{u} \underline{v}^T = \begin{pmatrix} u_1 \\ \cdots \\ u_n \end{pmatrix} (v_1, \dots, v_n) = \begin{pmatrix} u_1 v_1 & u_1 v_2 & \cdots & u_1 v_n \\ u_2 v_1 & u_2 v_2 & \cdots & u_2 v_n \\ \vdots & \vdots & \vdots & \vdots \\ u_n v_1 & u_n v_2 & \cdots & u_n v_n \end{pmatrix} \leftarrow \text{an } n \times n \text{ matrix}$$