

Parent

$$\begin{array}{l} (L_1, \dots, L_n) \\ (U_1, \dots, U_n) \end{array}$$

$e \in U_i \setminus L_i$   
is in the pattern

$e \in U_i \setminus L_i$   
is *not* in the pattern

$$\begin{array}{l} (L_1, \dots, L_i \cup \{e\}, \dots, L_n) \\ (K_1, \dots, U_i \setminus \{e\}, \dots, K_n) \text{ such that } \forall k \neq i, \\ K_k = \{f \in U_k \mid L_1 \times \dots \times \{e\} \times \dots \times \{f\} \times \dots \times L_n \subseteq \mathcal{R}\} \end{array}$$

$$\begin{array}{l} (L_1, \dots, L_n) \\ (U_1, \dots, U_i \setminus \{e\}, \dots, U_n) \end{array}$$

Left child

Right child