# Research

- GRAPHPLAN system is introduced by *Avrim Blum, Merrick Furst 1997*, which was much faster (orders of magnitude) than other contemporary planners. It introduce a great way of using graph structure to improve the performance of AI planning. Many new graph-planning systems were developed soon afterward. A planning graph can also be used to produce useful heuristic. [*AIAMA 3rd edition*].

- Fast Forward is introduced by *Hoffmann 2005*, which is a forward state-space searcher that can use heuristic effectively. It helps the development of useful heuristic in AI planning. [*AIAMA 3rd edition*].

- PDDL is introduced by *Ghallab et al. 1998* for defining planning problems. It has been used as the standard language for planning problems since 1998. PDDL helps to represent a planning problem in AI planning field, and easily parsed by computer. [*AIAMA 3rd edition*].