This is brief summary about paper Deep Blue:

This paper covered lot of concepts that gets used in deep blue chess engine which defeated world grandmaster. It mainly divided its success across software search,hardware search ,parallel search ,evaluation function and grandmaster database and end moves.

Chess chip is special hardware designed to play chess and its mainly has three functionalities one move generation,search control and evaluation functionalities .software search used different techniques like extended forcing/forced pair moves,,dual credit,delayed extension etc to limit the search explosion .they used hardware search for shallow searches in start games and quiescence in middle games and deep searches in end games . hardware search is quite restricted and controlled through different parameters. It talked about different parameters used to make hardware search efficient .It used heavy parallel search technique for coping with time constraint. It used load balancing techniques with master and child nodes to distribute the search across nodes.

It evaluation function takes into 8000 different patterns .some of them includes pawn structures,mobility,king safety,rooks on files are some of them.the evaluation function is complex part of the system. It also used opening moves which are gathered from grandmasters and extensible book with best moves ,end games database and time control which takes into consideration of system failures and distributed the time between moves and panic time for decisive moves .

It describes the factors that helped deep blue to defeat grandmaster and talked about the different places there is scope for improvement for future researchers to take on.