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The time complexity of the function I implemented is $\Theta(n^2)$, where n is the number of vertices in the underlying graph. The time complexity is not a function of the number of edges because the matrix contains information both about which edges exist and about which edges do not exist; each of these data must be checked.

By contrast, the adjacency matrix only contains information about which edges exist. I think that the rule “fill in the edges with a ‘1’, all other spots are zero” could be implemented with time complexity proportional to the number of edges only. For this reason, the time complexity of the conversion from adjacency list to adjacency matrix is $\Theta(n)$, where n is the number of edges.