Let **u** represent the probability vector of the starting state distribution, e.g. [0.25 0.45 0.25 0.05], and T represent the state transition matrix,

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| State | C | N | G | S |
| C | 0.1 | 0.4 | 0.1 | 0.4 |
| N | 0.2 | 0.3 | 0.4 | 0.1 |
| G | 0.1 | 0.4 | 0.4 | 0.1 |
| S | 0.7 | 0.1 | 0.1 | 0.1 |

Using the kth power transition matrix,

un= uTn

bpi = max u