Weekly Work Report

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1 Research problem

What you are researching? Talk about the motivation.

2 Research approach

Write down the approach you use in your research study, this will help you when writing the "Method" part in the paper. You may reference some papers like [1].

3 Research progress

How much work you have done before this work? Tell us the context, so we can quickly figure out where you are in your road map. Yeah, you walked through a long and hard road.

4 Progress in this week

List what you have done in this week in detail.

For example, maybe you performed some experiments this week. The following are the steps you took:

Step 1 Initially assign $Node(A) = 0$ as the weight of the initial node and $w(x) = \infty$ to all other nodes, where x represents the other nodes.

Step 2 Search x node for which it has the smallest temporary value of $w(x)$. Stop the algorithm if $w(x) = \infty$ or there are no temporary nodes. The node x is now labeled as permanent and as the current node, meaning parent of x and $w(x)$ will stay fixed.

Step 3 For each node adjacent to x labeled y which are also temporary, apply the following comparison: if $w(x) + Wxy < w(y)$, then $w(y)$ is updated to $w(x) + Wxy$, where W is the cost of the adjacent node. Now assign y to have parent x

Step 4 Repeat the process from Step 2, doing as many iterations as required until the shortest path is found.

5 Plan

Objective	XXXX
Deadline	XXXX

Node A point in a network at which lines or pathways intersect or branch. Also known as a vertex.

Path This is the finite sequences of edges, such that the end vertex of one edge in the sequence is the start vertex of the next, and in which no vertex appears more than once.

Weighted Graph A graph that has a number associated with each edge (its weight).

Directed Graph A graph, with sets of nodes connected together to make a network, where each of the edges are directed from one vertex to another.

References

[1] Proof of correctness. `https://web.engr.oregonstate.edu/~glencora/wiki/uploads/dijkstra-proof.pdf`. Accessed: 2015-12-03.