Most Direct Route

Video: Most Direct Route 9 min

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- Video: Breadth-First Search 7 min
- Video: Breadth-First Search (continued) 6 min
- Video: Implementation and Analysis 9 min
- **Video:** Proof of Correctness 7 min
- **Video:** Proof of Correctness (continued) 5 min
- Video: Shortest-Path Tree
- Video: Reconstructing the Shortest Path 3 min
- Reading: Slides and External References

Programming Assignment

Slides and External References

Slides

10_shortest_paths_in_graphs_1_bfs.pdf PDF File

Reading

Sections 4.1 and 4.2 in [DPV]

If you find this lesson difficult to follow

Section on breadth-first search at Algorithms class by Tom Cormen and Devin Balkcom at Khan Academy

Visualizations

• Breadth-first search by David Galles

References

[DPV] Sanjoy Dasgupta, Christos Papadimitriou, and Umesh Vazirani. Algorithms (1st Edition). McGraw-Hill Higher Education. 2008.





