References: A* Pathfinding

Essential Resources (Must Read)

Hart, P. E. , Nilsson, N. J. , & Raphael, B. (1968). A formal basis for the heuristic determination of minimum cost paths. *IEEE Transactions on Systems Science and Cybernetics*, 4(2), 100-107.

- The original A* algorithm paper

Patel, A. (2023). Introduction to the A* Algorithm. Red Blob Games. https://www.redblobgames.com/pathfinding/a-star/introduction.html

- Best interactive tutorial with visualizations

Russell, S., & Norvig, P. (2020). *Artificial Intelligence: A Modern Approach* (4th ed.). Pearson.

- Chapter 3: Search algorithms foundation

Game Development (Practical)

Millington, I., & Funge, J. (2009). *Artificial Intelligence for Games* (2nd ed.). CRC Press.

- Chapters 4-5: Pathfinding implementation for games

Rabin, S. (Ed.). (2013). *Game AI Pro: Collected Wisdom of Game AI Professionals.* CRC Press.

- Section on navigation and pathfinding techniques

Tozour, P. (2004). Search space representations. In *AI Game Programming Wisdom 2* (pp. 85-102). Charles River Media.

- Real examples from shipped games

Key Optimization Papers

Harabor, D., & Grastien, A. (2011). Online graph pruning for pathfinding on grid maps. *Proceedings of the AAAI Conference on Artificial Intelligence*, 1114-1119.

- Jump Point Search algorithm

Koenig, S. , & Likhachev, M. (2002). D* Lite. *Proceedings of the AAAI Conference on Artificial Intelligence*, 476-483.

- Incremental replanning for dynamic environments

Silver, D. (2005). Cooperative pathfinding. *Proceedings of the AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment*, 117-122.

- Multi-agent pathfinding

Sturtevant, N., & Buro, M. (2005). Partial pathfinding using map abstraction and refinement. *Proceedings of the AAAI Conference on Artificial Intelligence*, 1392-1397.

- Hierarchical pathfinding

Learning Theory (For Teaching)

Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. *Cognitive Science*, 12(2), 257-285.

- Why visualization helps learning

Hundhausen, C. D., Douglas, S. A., & Stasko, J. T. (2002). A meta-study of algorithm visualization effectiveness. *Journal of Visual Languages & Computing*, 13(3), 259-290.

- Research on algorithm visualization

Technical Documentation

Love2D Documentation. (2023). https://love2d.org/wiki/

- LÖVE game framework reference

Fennel Documentation. (2023). https://fennel-lang.org/

- Fennel language reference

Mononen, M. (2009). Recast Navigation. https://github.com/recastnavigation/recastnavigation

- Industry-standard NavMesh library