Annotated Bibliography

1. Contributors to Wikimedia projects. “500 Rum - Wikipedia.” *Wikipedia, the Free Encyclopedia* Wikimedia Foundation, Inc., 15 Sept. 2003, https://en.wikipedia.org/wiki/500_rum.

   This is a very detailed set of rules which is accessible by anyone. Much better than the Hoyle Card games book I was originally going to use for this purpose.

2. Davenport, Tom. “Explainable AI and the Rebirth of Rules.” *Forbes*, Forbes, 18 Mar. 2019, https://www.forbes.com/sites/tomdavenport/2019/03/18/explainable-ai-and-the-rebirth-of-rules/?sh=47cb3a0f39ae.

   This Forbes magazine article is going into detail about how rule based AI is not even close to dead yet. There are many examples where it is used today, including law offices to determine risk. I intend to use this source because it shows how a symbolic rule based AI is implemented

3. Osborne, Martin J. *An Introduction to Game Theory*. Oxford University Press, 2017.

   https://d1wqtxts1xzle7.cloudfront.net/32188651/An_Introduction_to_Game_Theory.pdf?1383077017=&response-content-disposition=inline%3B+filename%3DAn_Introduction_to_Game_Theory.pdf&Expires=1614131579&Signature=Zm3lu3LHQU67EVP8b14CTDuv4DlmkYQiYSMmskhdcEQ87D7orIcA9USbo7QB6gb4Y1KwtOEon-~7xWWSMPvK0AwfM5A8Q7oBt7ifAbwmN6Sw3pN6Z1YgwqNvJkff0~c0gZJht8Sf8i9CbYb6UoL4xllXWdYDy4H7gzRNHtrs7xjNjBoXSzpZK4AgwRdWrxIStcJHhBw-lXOYCu1nTMt4yxo8oEP5YJdnX4q3gdkDLhKN3SMq27yoVAkuc~-pT1IlG0ms7C49qdMy7XpLGqx3bLDECym4YSP4yL0IN8lM7xXFkGZZSpjZQyvfkVLTv6Ry1McooWt0sAsRxyZuGGR65g__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA

   This book is about decision making in games, and how to make the best decisions based on the state you are in. Although it does branch out into other applications of game theory in real life, I intend to use the first few chapters to get an idea of how my program should make decisions.

4. S. M. Lucas, "Computational Intelligence and AI in Games: A New IEEE Transactions," in *IEEE Transactions on Computational Intelligence and AI in Games*, vol. 1, no. 1, pp. 1-3, March 2009, doi: 10.1109/TCIAIG.2009.2021433.

   This journal article is specifically about AI in games. It covers simple games, like chess and checkers, and other card games up to AI models in modern video games. Will most likely be used to model my game.

5. Hector Muñoz-Avila and Christian Bauckhage and Michal Bida and Clare Bates Congdon and Graham Kendall, “Learning and Game AI, ” in *Artificial and Computational Intelligence in Games,* vol. 6, pp. 33-43, 2013, doi: 10.4230/DFU.Vol6.12191.33 https://drops.dagstuhl.de/opus/volltexte/2013/4334/

This article is more about machine learning in game AI than about implementation of rule based AI. If I have time to implement some kind of learning, this will be a good source.

6. Minsky, Marvin. “Logical vs Analitical or Symbolic vs Connectionistor Neat vs Scruffy”. Artificial Intelligenceat MIT, Expanding Frontiers.1990. https://web.media.mit.edu/~minsky/papers/SymbolicVs.Connectionist.html

This paper by Marvin Minsky compares all kinds of AI and machine learning architectures. In doing so he also brushes on the strengths and weaknesses of each one and where it could be used.

7. Desain, Peter (1993). A connectionist and a traditional AI quantizer, symbolic versus sub-symbolic models of rhythm perception, Contemporary Music Review, 9:1-2, 239-254, DOI: 10.1080/07494469300640471

This paper discusses multiple symbolic AI and subsymbolic approaches to interpreting rhythm in music. I would be mostly focused on the symbolic section, which discusses multiple symbolic architectures.

8. Yuret, Deniz. (1996). The binding roots of symbolic AI: a brief review of the Cyc project.

An interesting paper describing Cyc, an attempt to model “the human consensus knowledge” in a basic symbolic AI architecture.

9. Jesus Savage-Carmona. 1996. A hybrid system with symbolic AI and statistical methods for speech recognition. Ph.D. Dissertation. University of Washington, USA. Order Number: UMI Order No. GAX96-09599.

https://www.researchgate.net/profile/Mark-Billinghurst/publication/2340320_A_Hybrid_System_with_Symbolic_AI_and_Statistical_Methods_for_Speech_Recognition/links/0912f5131507f6c282000000/A-Hybrid-System-with-Symbolic-AI-and-Statistical-Methods-for-Speech-Recognition.pdf

A great article on improving speech recognition with a rule based symbolic AI approach combined with pre-existing statistical methods.

10. Ramsey, Allen. Introduction to Symbolic AI: Comp24412. 2017. Computer Science Department, Manchester University. Manchester UK. http://syllabus.cs.manchester.ac.uk/ugt/2017/COMP24412/COMP24412.pdf

An entire Manchester University course on Symbolic AI in one PDF and Prolog programming. Should be useful in many many ways.

11. . K. Došilović, M. Brčić and N. Hlupić, "Explainable artificial intelligence: A survey," *2018 41st International Convention on Information and Communication Technology, Electronics and Microelectronics (MIPRO)*, Opatija, Croatia, 2018, pp. 0210-0215, doi: 10.23919/MIPRO.2018.8400040.

This gives a nice overview into the types of explainable AI. There is an increasing desire for AI which can explain the logic it uses to arrive at a conclusion or make a prediction.

https://arxiv.org/pdf/1909.

12. https://bora.uib.no/bora-xmlui/bitstream/handle/1956/12790/144802471.pdf?sequence=1

This is a masters thesis about implementing the game Clue in prolog. The game has many of the same structures that I would have to implement (such as cards, a deck, players, and players taking turns). It also appears to be using some kind of logic based AI mechanism for reasoning based on the state of the game, but I have not had time to look closely at this.

13. Zhu, H., Liu, D., Ian Bayley, I., Harrison, R. and Cuzzolin, F., Datamorphic Testing: A Method for Testing Intelligent Applications, The 1st IEEE International Conference On Artificial Intelligence Testing (IEEE AITest 2019), San Francisco, California, USA, April, 4 - 9, 2019.

This is a paper that describes the difficulty of testing AI applications. AI programs tend to change behaviors based on the state they are in, making testing difficult.