Deep Q Learning: From Paper to Code

How to Read Deep Learning Papers

Last Time …

- Coded simple q learning agent
- Naive implementation didn’t work
- Convolutional neural nets for images

My Strategy for Reading

- Skim first
- Just get something working
- More details after prototype (or stuck)
- Shortens feedback loop
  - Just a suggestion!

The Structure of Papers

- Sections may or may not be labeled, but most are present
- Abstract → High level summary (what, why, outcome)
- Intro → High level overview of field and context
  - Read carefully for first paper; can skim for other two
- Background → Mathematical details; pay close attention
- Methods → How experiments were performed
- Results → What we are shooting for (ballpark)
- Architecture & Algorithms → What we are implementing
- Conclusion → Tie everything together
- References → What has been done before
- Appendices → Extra details (raw scores, mathematical proof)

Questions to Keep in Mind

- What algorithm?
- What data structures?
- What model architecture?
- What hyper parameters?
- What results to expect?

Up Next