#flo #ref #ret #incomplete

---

1 | Final Exploration

Note: I did a dive into trying to label the axes of a word vector space, and I also tried to do some stuff with summarization models, but neither of those projects worked out within the time frame. Delegated to summer they go. Instead, here are my notes on

1.1 | Neuromorphic Computing!

Cool talk

- Talks about autonomous drone racing
  - only possible recently due to tech limitations
  - Bird brain vs Drone "brain"
    - Parrot
      - 50mW, 2.2G
      - Can learn words
      - Can nav new environments at 35km/h
      - Can learn to manipulate cups for drinking
    - Drone
      - 18000 mW, 40g
      - Pre trained flying at walking pace
      - Can't learn anything online
    - Main idea is the birds adaptability
      - Can learn to "really understand what a cup can be useful for" despite it not being in its evolutionary past
      - way beyond current autonomous drones
    - We have a lot to learn from nature!
- Deep learning is very power hungry
  - increasingly so – grew by 300,000x in the last 6 years
  - not on a trajectory to close the gap with the parrot!
- Deep learning has slow generalization
  - Training currently is mostly offline and batched
  - example of a child looking at a few pictures of a cat: they can now easily tell what is a cat, and can even recognize cartoons of a cat.
- looking to the brain!
  -