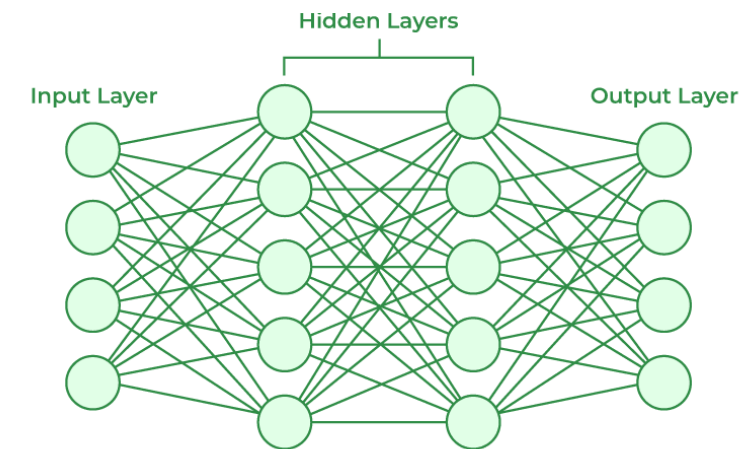
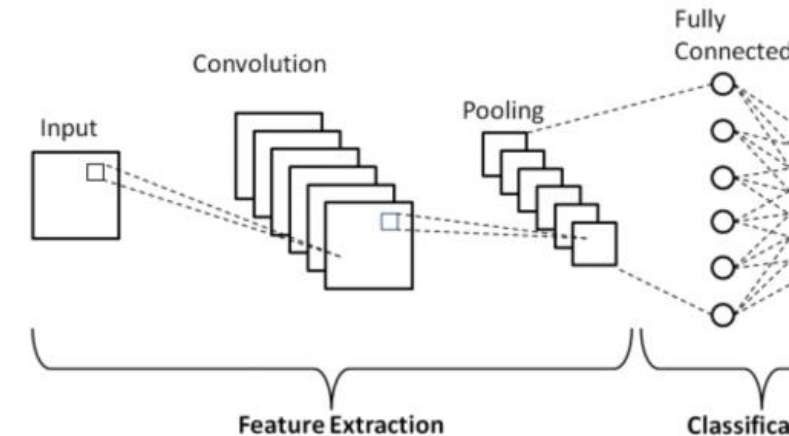
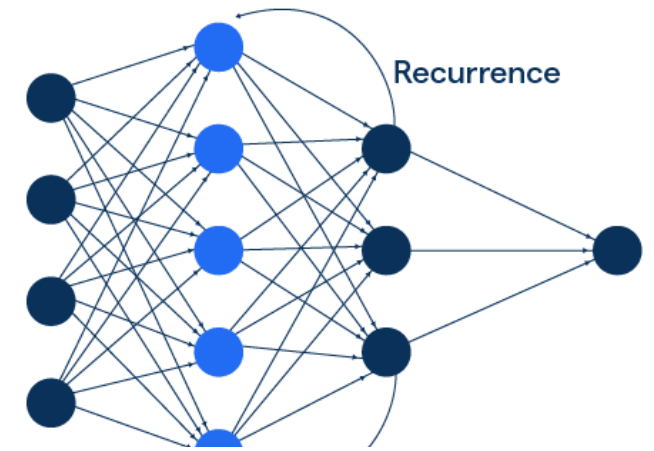


Neural Networks: Architectures and Applications

Week 5 Mini Survey
Luis Alberto Portilla López

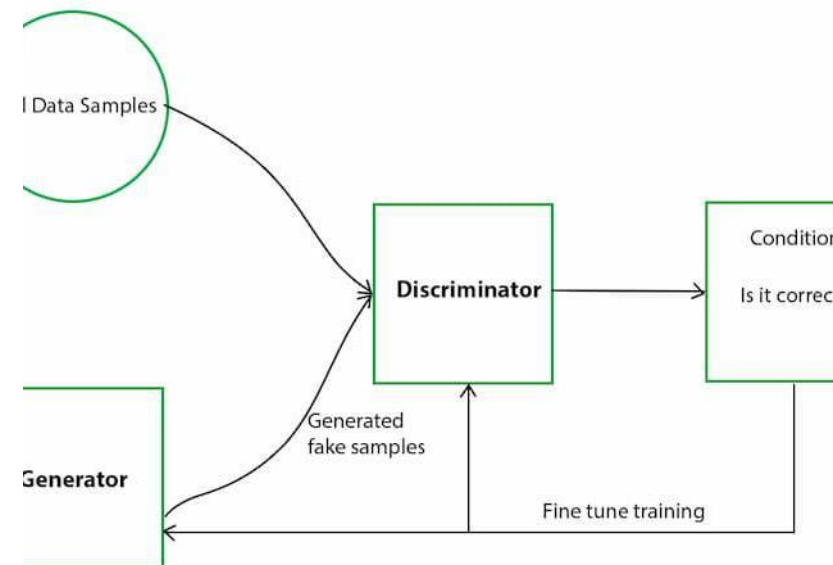
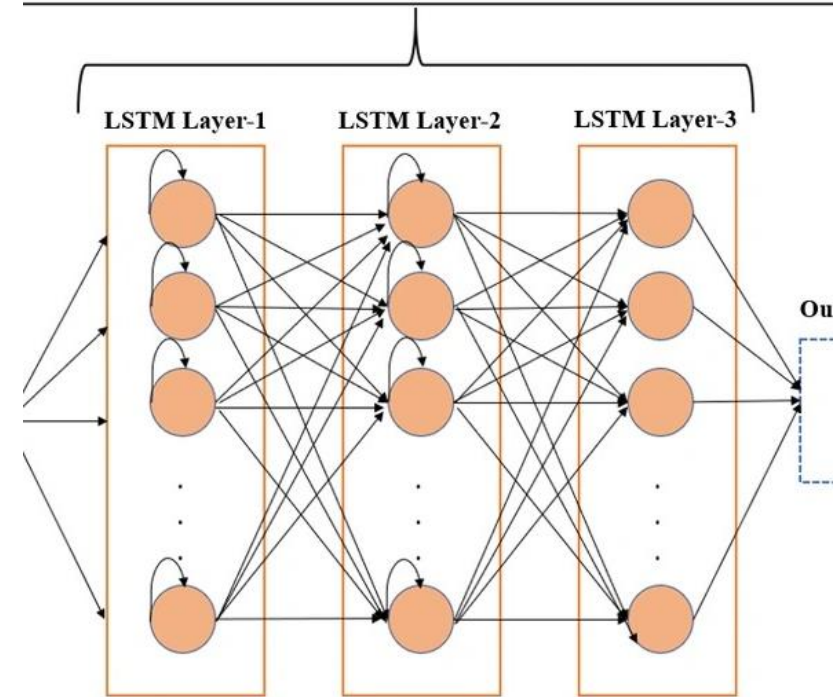
State-of-the-Art Architectures

- Artificial Neural Networks
- Convolutional Neural Networks
- Recurrent Neural Networks



State-of-the-Art Architectures

- Long Short-Term Memory (LSTM)
- Generative Adversarial Networks (GANs)



Search Methodology & Criteria



**CITATION CHAINING AND
FORWARD CITATION**



CRITERIA:



KEYWORD SEARCH



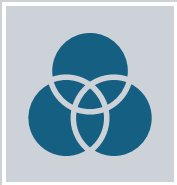
- Initial review of abstracts to assess relevance based on the title, publication venue, and year.



- Direct and indirect relevance to the paper being cross-referenced through the abstract.



- Consideration of the number of citations and field-weighted citation impact (fwci), a metric that measures the citation impact of a paper adjusted for disciplinary differences.



BOOLEAN SEARCH

Preliminary Terms



Key terms identified during the week:

- **Generative Adversarial Networks (GANs)**
- **Convolutional Neural Networks (CNNs)**
- **Recurrent Neural Networks (RNNs)**
- **Long Short-Term Memory (LSTM)**

Document Comparison



“Introduction to artificial neural networks”



**“Exploring the Advancements and Future Research Directions
of Artificial Neural Networks”**

References

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2. Firth, D. (1993). Bias reduction of maximum likelihood estimates. *Biometrika*, 80(1), 27-38.
3. Czepiel, S. A. (2002). Maximum likelihood estimation of logistic regression models: theory and implementation. Available at czep.net/stat/mlelr.pdf.
4. van Ravenzwaaij, D., Cassey, P., & Brown, S. D. (2018). A simple introduction to Markov Chain Monte–Carlo sampling. *Psychonomic Bulletin & Review*, 25(1), 143-154.