Preliminary Examination Advance

Breadth requirement

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Goal

The pegagogical goal of this project is to introduce a *selection of canonical computational models of cognition*.

Format

On-line, freely available, interactive Jupyter-Book.

Audience

Beginner-intermediate. Advance undergrads, early stage graduate students.

Chapters

1. Introduction to Computational Models of Cognition
2. McCulloch-Pitts Artificial Neuron (McCulloch & Pitts, 1943)
3. The Perceptron (Rossenblat, 1958)
4. The Adaline - Adaptive Linear Neuron (Widrow & Hoff, 1959)
5. The Multilayer Perceptron (Rummelhart, Hinton & Williams, 1986)
6. The Elman Network - Recurrent Neural Network (Elman, 1990)
7. The Convolutional Neural Network (Lecun et all, 1989)

Chapter Contents

Timeline

- 02/17: Chap 1 and 2
- 02/24 : Chap 3 (The Perceptron)
- 03/09: Chap 4 (The Adaline)
- 03/23: Chap 5 (The Multilayer-Perceptron)
- 04/06: Chap 6 (The Elman Network)
- 04/20: Chap 7 (The Convolutional Neural Network)
- 04/27: First draft

Link: https://com-cog-book.github.io/com-cog-book/intro.html