



Deeper Learning in Large-Scale Text

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What do I do?

▶ Build:

▶ Deep models for learning from Scholarly Big Data

- ▶ Multilayer neural networks, learning kernels
- ▶ Boltzmann Machines
- ▶ Convolutional Networks—text recognition in-the-wild (“Text in the Wild”)

▶ Active Learning Algorithms

- ▶ Bayesian Network Lattice for error-correcting Amazon Mechanical Turk annotations (Ororbia et. al, 2014, Under Review)

▶ Investigate:

- ▶ Can deep architectures discover/model inherent hierarchical structure in text?
- ▶ How can intelligent systems work in tandem with humans to solve complex problems?
- ▶ Can intelligent tools be built that harvest and organize vast amounts of scholarly data?
 - ▶ What insights can these same algorithms extract from the data?

