

STA 629 - Final Project Proposal

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1 Introduction and Project Scope

The proposed paper for the Final Project will investigate Transfer Learning. A noteworthy trend in Deep Learning literature is Transfer Learning, and more specifically Universal Domain Transfer Learning. Perhaps, "agnostic" Transfer Learning. The proposed project will investigate Transfer Learning and will aim to apply existing models and model architecture to a new domain. The justification for Transfer Learning is typically driven by computational capacity concerns, and we will likely re-apply those computationally efficient techniques in this project due to existing limitations. More specifically, one of the first phases of this project will involve either building a preliminary model with ample amounts of labeled data, or finding and implementing a pre-trained model. This will obviously depend on the two tasks we are most interested in. The second phase, as per the normal process of Transfer Learning, will involve using the previously trained model to fit and train a new model for a new task, rather than using a naively weighted model. More specifically, we will seek to use existing methodologies from Machine Learning Conference workshop papers and existing Deep Learning literature to apply Transfer Learning to predicting Credit Default.

The projected roadmap for this project will be as follows.

2 Proposed Project Roadmap