## Pre-Meeting - Friday, May 10th, 2019

## Peyman Bateni

May 27, 2019

## 1 Updates

- Done with literature review for the better part (one major paper that I just found and would like to evaluate), total of 30 papers evaluated, 18 were interesting and related to the work so I wrote detailed summaries for and evaluated the potential
- Done with the Intro to Prob Programming book, currently about half-way through the material for the 2017 Max Planck ML summer school, about 120 pages of reading on bayesian modelling and inference and additionally readings on Bayesian NPs
- Narrowed down problem statements:
  - Problem 1: model takes as input seen examples and class descriptions during training, at test time, its given description for unseen classes (and has the option to fine-tune using 1-5 examples in the few-shot case) and must predict the query examples. Train time =\(\ilde{\ell}\) support examples, class descriptions, (bi-modal) information, Test time =\(\ilde{\ell}\) unseen class descriptions, (unseen class examples for fine-tuning), unseen classes
  - Problem 2: multi-label variations of the first problem
- Currently working on a few potential ideas:
  - Visual GLoVe
  - Contextual graph matching
  - Unbounded hierarchical nonparametric bayes
  - Transfer functions with mixture of gaussian boundaries
  - Generalizable/Improved AIR
- Other than that, have been busy with the venture project with Adam and the CoNLL paper + (WACV paper although that was mainly planning), and some other work on the self-driving project

## 2 Goals for this Meeting

- Going through the proposed solutions
- Added papers if necessary, research guidance, other material on prob modelling/bayes I should go over
- Teaming up? potential research collaborators, etc.
- Course questions, scheduling another meeting for the venture