University of Waterloo Docker Images for OSIRRC at SIGIR 2019

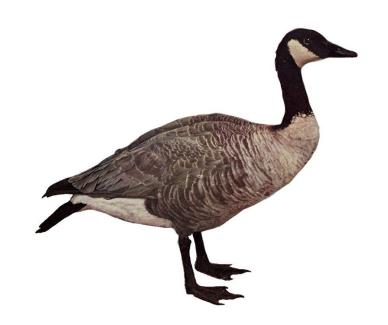
Authors: Ryan Clancy, Zeynep Akkalyoncu Yilmaz, Ze Zhong Wu, and Jimmy Lin

Presented by: Ryan Clancy



anserini-docker

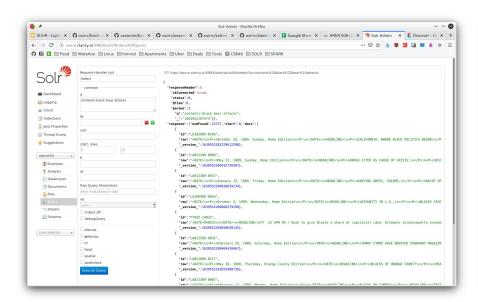
- Our IR toolkit built on Lucene, supporting replicable IR research
- BM25 + QL retrieval models
 - RM3 + Axiomatic re-ranking on top of initial results
- Supports all 6 OSIRRC collections

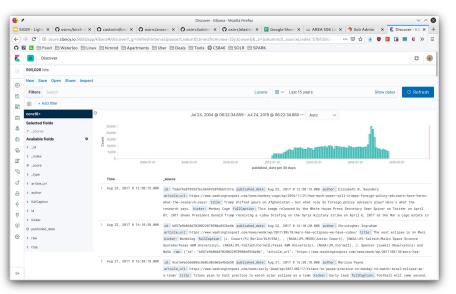




solrini-docker + elastirini-docker

- Spin-offs of the anserini image which index into Solr and Elasticsearch
- Evaluation results are the same as Anserini's
- Supports interact hook for interactive index exploration via web interfaces







birch-docker

- BERT based document ranking via sentence modeling
- Document ranking based on weighted sum of top 3 most relevant sentences per document
- Models fine-tuned on QA or microblog datasets
 - Image does inference only
- Supports robust04





Experience

What Went Well	What We Would Have Liked
- We primarily designed the jig developing the images was pretty smooth	- GPU support (e.g., for BERT fine-tuning) - Support for standardized cross validation - Shared volumes between hooks (e.g., model folder persisted between train and search hooks)



Thanks!