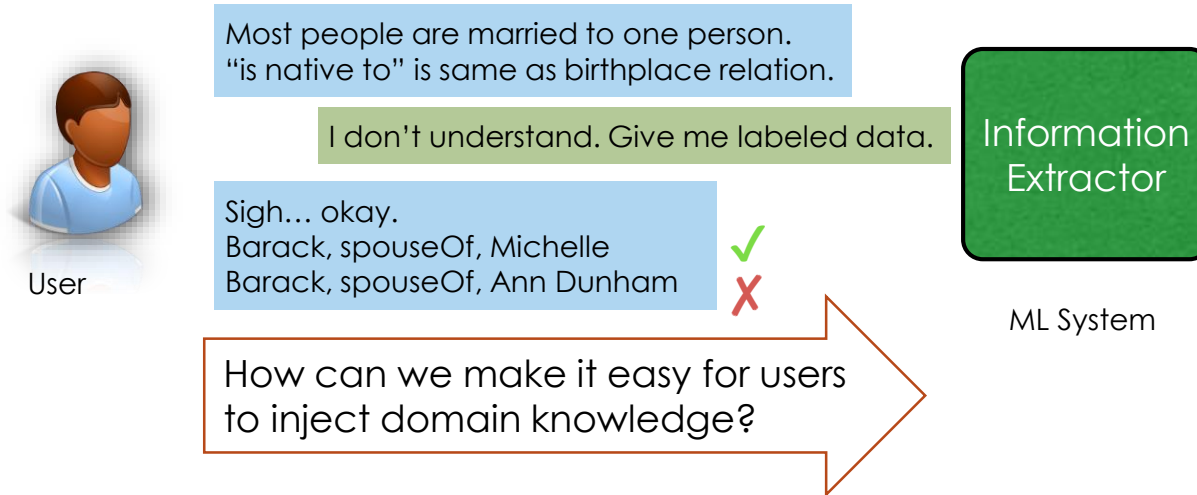


# Sameer Singh

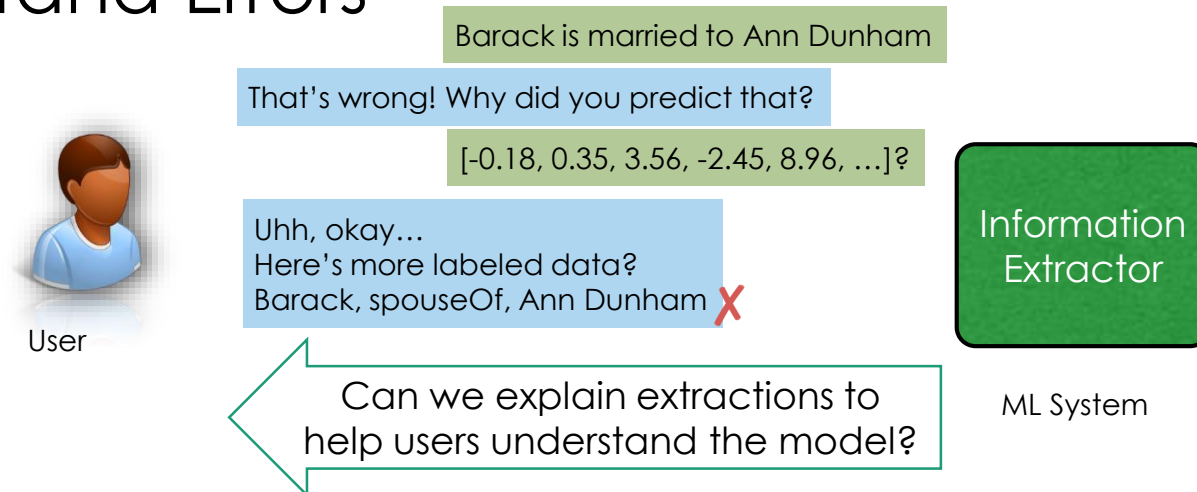
- Assistant Professor  
University of California, Irvine
- Background:
  - Postdoc, University of Washington
  - PhD, University of Massachusetts, Amherst
- Research Interests:
  - Explainable Machine Learning
  - Information Extraction & Knowledge Graphs



# Injecting Knowledge



# Understand Errors

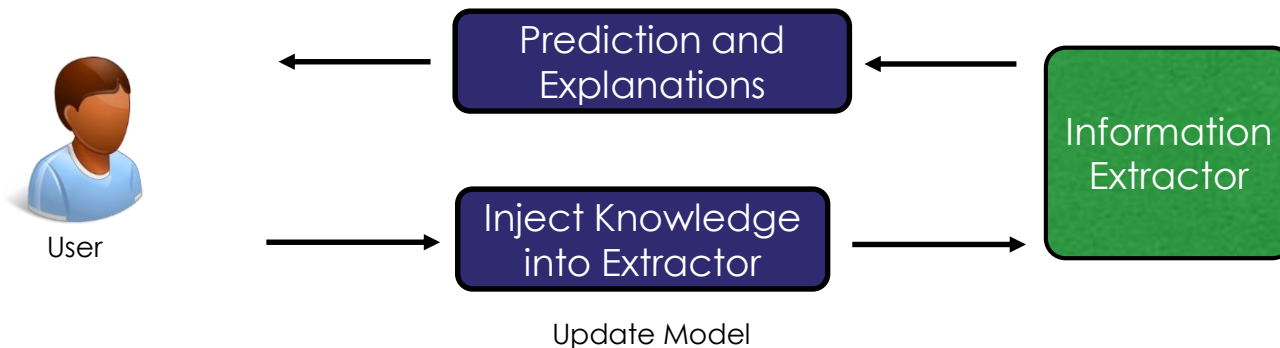


# Research Interests

human-in-the-loop interaction  
using rules to supervised complex, neural models

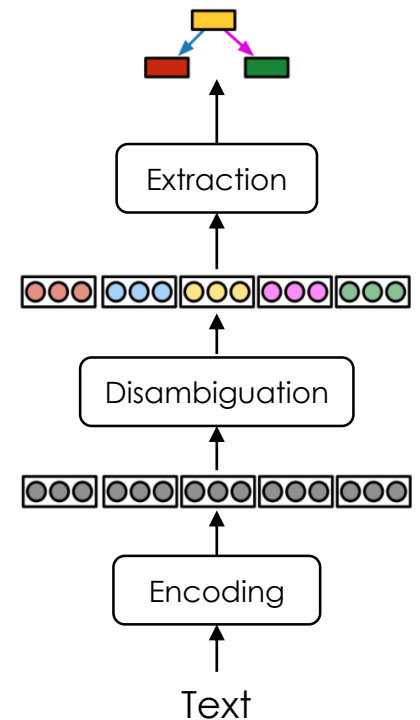
`spouseOf(Barack, AnnDunham)`

X was at wedding with Y  
=> X husband of Y => `spouseOf(X,Y)`



~~X~~ X was at wedding with Y => X husband of Y  
✓ X husband of Y => `spouseOf(X,Y)`

information extraction  
joint extraction of semantic information  
using neural graph representations



# Capabilities

## information extraction

M. Wick, **S. Singh**, H. Pandya, A. McCallum.

**A Joint Model for Discovering and Linking Entities.**

*CIKM Workshop on Automated Knowledge Base Construction (AKBC)*. 2013

N. Gupta, **S. Singh**, D. Roth.

**Entity Linking via Joint Encoding of Types, Descriptions, and Context.**

*Empirical Methods in Natural Language Processing (EMNLP)*. 2017

**S. Singh**, A. Subramanya, F. Pereira, A. McCallum.

**Large-Scale Cross-Document Coreference Using Distributed Inference and Hierarchical Models.**

*Association for Computational Linguistics (ACL)*. 2011

T. Rocktaschel, **S. Singh**, S. Riedel.

**Injecting Logical Background Knowledge into Embeddings for Relation Extraction.**

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M. Tulio Ribeiro, **S. Singh**, C. Guestrin.

**"Why Should I Trust You?": Explaining the Predictions of Any Classifier.**

*Knowledge Discovery and Data Mining (KDD)*. 2016

Z. Zhao, D. Dua, **S. Singh**.

**Generating Natural Adversarial Examples.**

*International Conference on Learning Representations (ICLR)*. 2018

M. Tulio Ribeiro, **S. Singh**, C. Guestrin.

**Anchors: High-Precision Model-Agnostic Explanations.**

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**S. Singh**, S. Riedel, B. Martin, J. Zheng, A. McCallum.

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*CIKM Workshop on Automated Knowledge Base Construction (AKBC)*. 2013

X. Ling, **S. Singh**, D. Weld.

**Design Challenges for Entity Linking.**

*Transactions of the Association for Computational Linguistics (TACL)*. 2015

R. L. Logan, S. Humeau, **S. Singh**.

**Multimodal Attribute Extraction.**

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## human-in-the-loop interaction

**S. Singh**, L. Yao, S. Riedel, A. McCallum.

**Constraint-Driven Rank-Based Learning for Information Extraction.**

*Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL)*. 2010

T. Rocktaschel, **S. Singh**, S. Riedel.

**Injecting Logical Background Knowledge into Embeddings for Relation Extraction.**

*Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL)*. 2015

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