Biography

Yuan-Fang Li is a Senior Lecturer in the Department of Data Science & Artificial Intelligence (DS+AI), Faculty of Information Technology, Monash University. Yuan-Fang's research interests include knowledge graphs, ontology reasoning & knowledge representation, natural language processing, representation learning (embedding) of networks/graphs. Some of the research problems he works on include:

- Structural & temporal learning for hospital readmission risk prediction.
- Question generation from text & knowledge graphs.
- Complex question answering over knowledge graphs.
- Learning to improve ontology reasoning efficiency.
- Intuitive & scalable visualisation of non-hierarchy associations in large ontologies.

Related Links:

More information can be found at Yuan Fang's personal homepage.

Qualifications

Computer Science, Doctor of Philosophy, National University of Singapore
Award Date: 18 Dec 2006

Computer Science, Bachelor of Computing (Honours), National University of Singapore
Award Date: 7 Aug 2002

Research output

Generalized pyramid co-attention with learnable aggregation net for video question answering

Combining cross-modal knowledge transfer and semi-supervised learning for speech emotion recognition

Boosting house price predictions using geo-spatial network embedding

Multimodal feature-wise co-attention method for visual question answering

Code2Que: a tool for improving question titles from mined code snippets in stack overflow

Adaptive knowledge-enhanced Bayesian meta-learning for few-shot event detection
Curriculum-meta learning for order-robust continual relation extraction

Exploiting scene graphs for Human-Object Interaction detection

Improving numerical reasoning skills in the modular approach for complex question answering on text

Key factors influencing retail store expansion decisions: case study of combining evidence- and data- driven approach

Multi-scale contrastive siamese networks for self-supervised graph representation learning

Towards balanced defect prediction with better information propagation

XL-Sum: large-scale multilingual abstractive summarization for 44 languages

Less is more: data-efficient complex question answering over knowledge bases

MedGraph: structural and temporal representation learning of electronic medical records

Towards meta-reasoning for ontologies: a roadmap

Understanding and improving ontology reasoning efficiency through learning and ranking

OntoPlot: a novel visualisation for non-hierarchical associations in large ontologies
A general-purpose visual query language for knowledge graphs with bidirectional transformations

Few-shot complex knowledge base question answering via meta reinforcement learning

Gaussian embedding of large-scale attributed graphs

Generating question titles for Stack Overflow from mined code snippets

Knowledge-enriched, type-constrained and grammar-guided question generation over knowledge bases

Learning from the scene and borrowing from the rich: tackling the long tail in scene graph generation

Retrieve, program, repeat: complex knowledge base question answering via alternate meta-learning

Robust Attribute and Structure preserving graph Embedding

SNEQ: semi-supervised attributed network embedding with attention-based quantisation

Towards generating thread-safe classes automatically

Understanding unnatural questions improves reasoning over text
Vocabulary matters: a simple yet effective approach to paragraph-level question generation

A survey on the use of access permission-based specifications for program verification

Vector and line quantization for billion-scale similarity search on GPUs

Difficulty-controllable multi-hop question generation from knowledge graphs

Footprints of fitness functions in Search-Based Software Testing

One network for multi-domains: domain adaptive hashing with intersectant generative adversarial networks

ParaQG: a system for generating questions and answers from paragraphs

Putting the horse before the cart: a generator-evaluator framework for question generation from text

RobustQiQ: a robust ANN search method for billion-scale similarity search on GPUs

Simulating exploration versus exploitation in agent foraging under different environment uncertainties

Sip4J: statically inferring access permission contracts for parallelising sequential Java programs
Structured two-stream attention network for video question answering

Predicting reasoner performance on ABox intensive OWL 2 EL ontologies

Automating reading comprehension by generating question and answer pairs

Using knowledge graphs to explain entity co-occurrence in Twitter

BioVis Explorer: A visual guide for biological data visualization techniques

Extracting permission-based specifications from a sequential Java program

An information-theoretic predictive model for the accuracy of AI agents adapted from psychometrics

Analyzing the evolution of ontology versioning using metrics

ICECCS 2015 preface

Explicit query interpretation and diversification for context-driven concept search across ontologies

Factors of collective intelligence: How smart are agent collectives?
Observation, communication and intelligence in agent-based systems

R²O²: An efficient ranking-based reasoner for OWL ontologies

A meta-reasoner to rule them all: Automated selection of OWL reasoners based on efficiency

Event analytics

How long will it take? Accurate prediction of ontology reasoning performance

The mobile semantic web

The ubiquitous semantic web: Promises, progress and challenges

Towards a consistent feature model using OWL

Two decades of Web application testing: A survey of recent advances

An ontology-centric architecture for extensible scientific data management systems

Enriching concept search across semantic web ontologies

Visualization of large ontologies with landmarks

A rigorous characterization of classification performance: A tale of four reasoners
**Knowledge enrichment analysis for human tissue-specific genes uncover new biological insights**

**Predicting reasoning performance using ontology metrics**

**Integrating software engineering data using semantic web technologies**

**Using semantic web technologies to build a community-driven knowledge curation platform for the skeletal dysplasia domain**

**Scale-out RDF molecule store for efficient, scalable data integration and querying**

**Discovering anomalies in semantic web rules**

**Measuring design complexity of semantic web ontologies**

**PODD - Towards an extensible, domain-agnostic scientific data management system**

**PODD: An ontology-driven data repository for collaborative phenomics research**

**Proceedings of the ACM International Conference on Digital Libraries: Message from the program chairs**

**Towards a semantic & domain-agnostic scientific data management system**

**Verifying semistructured data normalization using SWRL**
An integrated formal approach to semantic work environments design

Correctness criteria for normalization of semistructured data

Enhancing semantic web services with inheritance

Scalable semantics - The silver lining of cloud computing

Extended abstract: Towards verifying semistructured data

Belief-augmented OWL (BOWL) - Engineering the semantic web with beliefs

Verifying feature models using OWL

A Z approach in validating ORA-SS data models

Reasoning about ORA-SS data models using the semantic web

Research into verifying semistructured data

Semantic web languages - Towards an institutional perspective

Validating semistructured data using OWL
Institution morphisms for relating OWL and Z

TCOZ approach to OWL-s process model design

A tools environment for developing and reasoning about ontologies

Formal semantics and verification for feature modeling

Soundness proof of Z semantics of OWL using institutions

Verify feature models using Protege-OWL

Verifying OWL and ORL ontologies in PVS

Visualizing and simulating semantic web services ontologies

TCOZ approach to semantic web services design

A combined approach to checking web ontologies

Verifying DAML+OIL and beyond in Z/EVES

XML-based static type checking and dynamic visualization for TCOZ
Prizes

**Best Student Paper Award**
Li, Yuan-Fang (Recipient), Jan 2020

**Kurzweil Best Paper Prize**
Li, Yuan-Fang (Recipient), 2017

**President’s Graduate Fellowship Scholarship**
Li, Yuan-Fang (Recipient), 2005

**Singapore Millennium Foundation Scholarship**
Li, Yuan-Fang (Recipient), 2004