Mayank Kejriwal

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**Current position**

Research Assistant Professor April 2019-Current

Industrial and Systems Engineering

Viterbi School of Engineering

University of Southern California

Research Lead April. 2019-Current

Information Sciences Institute

Viterbi School of Engineering

University of Southern California

**EDUCATION**

University of Texas at Austin

Department of Computer Science

M.Sc. and Ph.D., Computer Science Aug. 2012-May 2016

Ph.D. thesis: *Populating a Linked Data Entity Name System*

**Recipient of SWSA Best Dissertation Award**

University of Illinois at Urbana-Champaign

Department of Electrical and Computer Engineering

B.Sc. in Computer Engineering, Highest Honors Aug. 2009-Aug. 2012

Honors thesis: *Machine Learning Techniques in Offline Handwriting Transcription*

**CURRENT projects**

**Generating Novelty in Open-World Multi-Agent Environments (GNOME) Since Dec. 2019**

***Principal Investigator***

***Amount: 2,966,772$***

***Anticipated Period of Performance: Dec. 2019-May 2023***

*Funded under DARPA Science of Artificial Intelligence and Learning for Open-world Novelty (SAIL-ON) program*

**Key Responsibilities:** Developing a domain-independent science of novelty that can be used to characterize novel phenomena at various levels of granularity and specificity in multiple domains, and a domain-specific testbed (platform, protocol and metrics) that can be used to evaluate external novelty-adaptive AI systems being developed for playing stochastic multi-agent board games of strategy (e.g., Monopoly)

**Representation Learning for Product Graphs Since Sep. 2019**

***Principal Investigator***

***Amount: 25,000$***

*Funded under Yahoo! Faculty Research Engagement Program (FREP)*

**Key Responsibilities:** Researching knowledge graph-based approaches for processing and doing analytics on Web-scale e-commerce datasets, including application areas such as product categorization, representation learning and entity reconciliation

**Multi-modal Open World Grounded Learning and Inference (MOWGLI) Since Aug. 2019**

***Co-Principal Investigator***

***Amount: 9,850,056$***

***Anticipated Period of Performance: Jun. 2019-May 2023***

*Funded under DARPA Machine Common Sense (MCS) program*

**Key Responsibilities:** Researching neuro-symbolic techniques and algorithms for enabling machines to understand commonsense situations evaluated using both natural language and visual question-answering stimuli

**Crisis Understanding using Intelligent Systems Since Jul. 2019**

***Principal Investigator***

***Amount: 4650$***

***Anticipated Period of Performance: May/Jun. 2020***

*Funded under USC Undergraduate Research Associates Program (URAP)*

**Key Responsibilities:** Mentoring undergraduate students in research in a social impact project that applies Artificial Intelligence techniques to deriving actionable insights from social media data during natural disasters and crises

**Discovery and Dismantling of Human Trafficking Networks Since Jan. 2019**

***Principal Investigator***

***Amount: 100,000$***

***Anticipated Period of Performance: Jan. 2019-Dec. 2020***

*Funded under Keston Research Project (non-contract)*

**Key Responsibilities:** Building software and systems to enable a highly collaborative (with law enforcement, federal agencies and social and political scientists) endeavor to computationally discover (and dismantle) sex trafficking activity at national and global scales

**Past projects**

**THOR: Text-enabled Humanitarian Operations in Real-time Jun. 2016-Jan. 2020**

***Principal Investigator***

*Funded under DARPA Low Resource Languages for Emergent Incidents (LORELEI)*

**Key Responsibilities:** Researching and transitioning robust entity linking, instance matching, clustering and network analysis methods to provide situational awareness to customers in the humanitarian assistance and disaster relief (HADR) domain

**ELICIT: A System for Extracting and Organizing Causal Information Aug. 2017-Jan. 2019**

*Funded under DARPA Causal Exploration of Complex Operational Environments (CauseEx)*

Key Responsibilities: Semi-automatically modeling and discovering causal factors, and performing entity resolution across nodes of a heterogeneous knowledge graph constructed from structured, semi-structured and unstructured data sources.

**DSBox: Data Scientist in a Box Mar. 2017-Jan. 2019**

*Funded under DARPA Data-driven Discovery of Models (D3M)*

Key Responsibilities: Performing research and development on, and building, an automated sequence modeling-based pipeline to minimize data cleaning effort by data scientists in the field.

**GAIA: Generating Alternatives for Interpretation and Analysis Jan. 2018-Aug. 2018**

*Funded under DARPA Active Interpretation of Disparate Alternatives (AIDA)*

Key Responsibilities: Building on expertise in knowledge graphs and Entity Resolution to process, refine, link and reason over outputs of upstream multi-modal information extraction systems.

**SAGE: Synergistic Anticipation of Geopolitical Events Aug. 2017-May 2018**

*Funded under IARPA Hybrid Forecasting Competition (HFC)*

Key Responsibilities: Building an advanced forecasting platform, both for research and actual use, that uses natural language processing and data mining to assist experts and forecasters in making informed predictions about geopolitical events.

**DIG: Domain-specific Insight Graphs Jun. 2016-Apr. 2018**

*Funded under DARPA MEMEX*

Key Responsibilities: Researching and developing robust information extraction, search, link prediction and entity resolution algorithms to assist investigators and law enforcement in complex domains such as human trafficking and securities fraud.

**scholarships, AWARDS and travel grants**

Copper Black Award for Creative Achievement awarded by the Mensa Foundation **2019**

Intellectual Benefits to Society Award awarded by the Mensa Foundation **2019**

Red Judge, IBM Watson AI XPrize **2019**

Forbes 30 Under 30 Shortlist (Science Category) **2019**

Forbes Under 30 Scholar **2018**

USC Marshall MBA Admissions Scholarship **2018-2019**

THOR featured in DARPA’s 60th anniversary **2018**

ISI Publication Award (500$) **2018**

AI2 Key Scientific Challenge Winner (10,000$) **2018**

Semantic Web Science Association Best Dissertation Award **2017**

Amazon Cloud Credits for Research Grant **2017**

Microsoft Azure for Research Grant **2017**

AAAI Doctoral Consortium Travel Award **2015**

Microsoft Azure for Research Grant **2014**

National Science Foundation Travel Grant **2014**

Department Nominee: Microsoft, Google fellowships **2013**

Department Travel Grant **2013**

MCD Fellowship **2012-2014**

Daniel and Carol Dobberpuhl Award **2012**

Senior 100 Honorary **2012**

Henry O. Koehler Scholarship **2011**

Chancellor’s Scholar **2010-2012**

Edmund J. James Scholar **2009-2012**

Dean’s List **2009-2012**

**teaching**

University of Southern California

**Research Assistant Professor Aug. 2019-Dec. 2019**

ISE 599: Special Topics (Applied Predictive Analytics)

University of Southern California

**Lecturer in Computer Science Aug. 2016-Dec. 2016**

*CSCI 548: Information Integration*

University of Texas at Austin

**Teaching Assistant Aug. 2012-Jun. 2014**

*Contemporary Issues in Computer Science (Spring 2014)*

*Automata Theory (Spring 2013)*

*Data Management (Falls 2013, 2012)*

*Artificial Intelligence (Fall 2012)*

**EXPERIENCE**

Department of Industrial and Systems Engineering, USC

Research Assistant Professor Apr. 2019-Current

*Engage in research, mentorship and teaching activities as research faculty in the ISE department*

Information Sciences Institute, USC

Research Lead Apr. 2019-Current

*Lead multiple government funded research projects in ISI’s Center on Knowledge Graphs*

Information Sciences Institute, USC

Computer Scientist Jun. 2016-Current

*Conduct research on multiple government-funded projects in ISI’s Center on Knowledge Graphs*

Information Sciences Institute, USC

AI Seminar Coordinator Jan. 2017-Jan. 2018

*Invited experts in AI and organized talks under the Intelligent Systems division at ISI*

Capsenta, Inc.

Semantic Web Consultant May 2016-Jun. 2016

*Worked on integrating advanced ontology matching solutions in the company’s current products*

University of Texas at Austin

Graduate Research Assistant Jun. 2014-May 2016

*Conducted research in RiBS group led by Daniel P. Miranker*

CareerBuilder LLC, Norcross, Georgia

**Data Scientist Intern** **May 2015-Aug. 2015**

*Worked in the R&D team on the Recruitment Edge and Company Normalization products*

Rackspace, the Open Cloud Company, San Antonio, Texas

Summer Intern May 2013-Jul. 2013

*Worked on the Big Data team helping with a new Hadoop-based product roll-out*

National Center for Supercomputing Applications, Urbana, Illinois

Undergraduate Research Intern May 2011-Aug. 2011

*Developed scalable machine learning techniques to automate digital handwriting transcription of terabyte-level US census data*

University of Illinois at Urbana-Champaign

Camp Counselor May 2010-Aug. 2010

*Designed STEM exercises for high-school students, and supervised them thereof*

University of Illinois at Urbana-Champaign

**Freshman Research Intern May 2010-Aug. 2010**

*Helped to automate biomedical image processing tasks using the ImageJ software tool*

**SKILLS**

* **Specialties** – Information Integration, Natural Language Processing, Semantic Web, Data Mining, Machine Learning
* **Languages**– Python , Java, C/C++, MATLAB, SQL, SPARQL, Latex
* **Systems, Tools and Packages**– PyCharm, Amazon Web Services, SciKit Learn, t-SNE, NetworkX, TensorFlow, Microsoft Azure, Eclipse IDE**,** Weka, LibSVM, SecondString, FEBRL, Lucene, Mallet

**LANGUAGES**

* **Native** – English, Hindi
* **Fluent** – Bengali

**PROFESSIONAL service**

* **Program Committee Member,** In-use track**,** International Semantic Web Conference (ISWC), 2020
* **Program Committee Member,** 2nd Conference on Automated Knowledge Base Construction (AKBC), 2020
* **Program Committee Member,** Workshop on Deep Learning for Knowledge Graphs and Semantic Technologies, to be held at the Extended Semantic Web Conference (ESWC) in 2020
* **Program Committee Member,** IEEEInternational Conference on Semantic Computing (ICSC), 2020
* **Program Committee Member,** Extended Semantic Web Conference (ESWC), 2020
* **Co-Track Chair,** Machine Learning Track, Extended Semantic Web Conference (ESWC), 2020
* **Program Committee Member,** AAAI Conference (Demonstrations Track), 2020
* **Program Committee Member,** AAAI Conference (Research Track), 2020
* **Reviewer,** SoftwareX, 2019
* **General Chair,** ACM Knowledge Capture (K-CAP) Conference, 2019
* **Organizer**, AI for Social Good (Humanitarian Relief and Development Track) at AAAI Fall Symposium, 2019
* **Program Committee Member**, New Trends in Representation Learning with Knowledge Graphs (KGRL), ECML PKDD Workshop, 2019
* **Reviewer**, Expert Systems with Applications (Elsevier), 2019
* **Program Committee Member**, The Ninth International Conference on Social Media Technologies, Communication, and Informatics (SOTICS). 2019
* **Program Committee Member,** The 13th IEEE International Conference on Semantic Computing (ICSC), 2020
* **Program Committee Member,** 6th ICML Workshop on Automated Machine Learning (AutoML 2019)
* **Program Committee Member,** Workshop on Knowledge Graph Representation Learning for Flexible Reasoning co-held with ECML-PKDD, 2019
* **Reviewer,** Data Technologies and Applications, 2019
* **Reviewer,** ACM Computing Surveys, 2019
* **Program Committee Member**, International Semantic Web Conference (Research Track), 2019
* **Session Chair,** AAAI Conference (AI and the Web 2 Session), Jan. 29 2019
* **Session Chair,** AAAI Conference (Applications and the Web 1 Session), Jan. 29 2019
* **Session Chair,** AAAI Conference (Applications and the Web 2 Session), Jan. 30 2019
* **Program Committee Member,** Workshop on Semantic Web for Social Good (SWSG) co-held with the International Semantic Web Conference (ISWC), 2019
* **Invited Member,** MIT Technology Review Global Panel, 2019
* **Reviewer,** Data and Knowledge Engineering (Elsevier), 2019
* **Reviewer,** Information Systems (Elsevier), 2019
* **Reviewer,** Applied Sciences Journal (MDPI), 2019
* **Program Committee Member**, 7th International Conference on Building and Exploring Web Based Environments (WEB 2019)
* **Program Committee Member**, Extended Semantic Web Conference (ESWC), 2019
* **Reviewer**, 1st International Conference on Automated Knowledge Base Construction, 2019
* **Program Committee Member,** 1st International Workshop on Intelligence & Interaction in Knowledge Engineering (IIKE) held in conjunction with the 13th IEEE International Conference on Semantic Computing, 2019
* **Reviewer**, CHI 2019
* **Program Committee Member,** The 13th IEEE International Conference on Semantic Computing (ICSC), 2019
* **Program Committee Member,** AAAI Conference (Demonstration Track), 2019
* **Program Committee Member,** AAAI Conference (Research Track), 2019
* **Program Committee Member,** The ACM Web Conference (Web Mining and Content Analysis Track), 2019
* **Panelist,** International Workshop on Semantic Web for Social Good, ISWC 2018
* **Jury Member**, International Semantic Web Conference: Posters and Demos, 2018
* **Student Voice Champion**, University of London, 2018-2019
* **Editorial Board Member**, Special Issue on Knowledge Graphs, international Semantic Web Journal, 2018
* **Reviewer,** Applied Sciences Journal (MDPI), 2018
* **Reviewer,** IEEE Transactions on Knowledge and Data Engineering (TKDE), 2018
* **Reviewer**, ACM Transactions on the Web, 2018
* **Reviewer,** Semantic Web Journal, 2018
* **Reviewer,** Technologies, 2018
* **Reviewer,** Information, 2018
* **Reviewer,** Scientific Programming, 2018
* **Reviewer,** Machine Learning and Knowledge Extraction Journal, 2018
* **Program Committee Member,** International Workshop on Semantic Web for Social Good, ISWC 2018
* **FigShare Ambassador,** 2018
* **Program Committee Member (Research; Posters and demos),** International Semantic Web Conference (ISWC), 2018
* **Co-Chair,** Workshop on Deep Learning for Knowledge Graphs and Semantic Technologies, to be held at the Extended Semantic Web Conference (ESWC) in Crete , Greece 2018
* **Guest Editorial Board**, Special Issue on Representation Learning for the Semantic Web, Journal of Web Semantics (2018)
* **Co-Chair,** BigNet workshop, to be held at the ACM The Web Conference (formerly known as ACM WWW) in Lyon, France 2018
* **Guest Editorial Board**, Special Issue on Semantic Deep Learning, Semantic Web Journal (2018)
* **Program Committee Member,** 1st Workshop on Knowledge Base Construction, Reasoning and Mining (KBCOM), co-held with ACM WSDM Conference 2018
* **Judge,** Virtual Poster Showcase at the American Geophysical Union Fall Meeting, 2017
* **Reviewer,** Semantic Web Journal (Nov. 2017)
* **Reviewer**, ACM Transactions on the Web (Nov. 2017)
* **Program Committee Member,** ACM The Web Conference (TheWebConf; former ACM World Wide Web), 2018
* **Reviewer,** IEEE Transactions on Knowledge and Data Engineering (TKDE), 2017
* **Co-Chair,** Hybrid Statistical Semantic Understanding and Emerging Semantics Workshop (HSSUES) half-day workshop, to be held at International Semantic Web Conference (ISWC), 2017
* **Program Committee Member,** Data-driven Discovery of Models (D3M) half-day workshop, to be held at International Conference on Data Mining (ICDM), 2017
* **Program Committee Member,** Broadening Participation in Data Mining (BPDM) workshop, to be held at KDD 2017
* **Program Committee Member (Research; Posters and demos),** International Semantic Web Conference (ISWC), 2017
* **Sub-reviewer,** ACM World Wide Web Conference (WWW), 2017
* **Program Committee Member (Posters and demos),** International Semantic Web Conference (ISWC), 2016
* **Program Committee Member,** International Joint Conference on Artificial Intelligence (IJCAI), 2016
* **Reviewer,** ACM Journal of Data and Information Quality (JDIQ), 2016
* **Sub-reviewer,** International Joint Conference on Artificial Intelligence (IJCAI), 2015
* **Sub-reviewer,** Very Large Databases (VLDB), 2013

**outreach and activities**

* **MIT Operations Simulation Competition**, USC Team MNXP Member (April 2019), [Website](http://sloanopsclub.mit.edu/)
* **Everyone’s Business Global Case Competition on Gender Equity**, USC Team Ruth Bader Ginsberg Member (March 2019), [Website](https://clubs.marshall.usc.edu/mbcp/ebgcc/)
* **AI Topics for K-12,** Editor-in-chief (March 2017-Current), [Website](https://aitopics.org/misc/about)
* **AAAI Connections,** Volunteer (February 2017)
* **Present your research to a 12-year old,** Invited speaker at multiple venues (December 2015-May 2016)
* **Engineering Open House,** University of Illinois at Urbana-Champaign (2010)

**honors and intelligence societies**

* **Phi Kappa Phi**
* **Tau Beta Pi**
* **Alpha Lambda Delta**
* **Phi Eta Sigma**
* **Mensa**
* **Intertel**
* **Triple Nine Society**

**hackathons**

* **Classifying Clinically Actionable Genetic Mutations,** NIPS Competition (2017)
* **End Human Trafficking Hackathon,** Cornell (2016); *featured in* [*NY Daily News*](http://www.nydailynews.com/new-york/nyc-crime/student-hackers-manhattan-da-fight-human-trafficking-article-1.2821657?cid=bitly)
* **Kaggle,** Web competitions (2014-2016)
* **CareerBuilder Summer Hackathon,** CareerBuilder (2015)
* **dataHackUT,** University of Texas at Austin (2014)

**professional societies**

* **Association for the Advancement of Artificial Intelligence (AAAI)**
* **American Association for the Advancement of Science (AAAS)**
* **Association for Computing Machinery (ACM)**
* **Institute of Electrical and Electronics Engineers (IEEE)**
* **Society for Industrial and Applied Mathematics (SIAM)**

**ALumni networks**

* **London School of Economics, Los Angeles Chapter (2019)**
* **University of Southern California, Marshall School of Bsuiness (2018)**
* **Heidelberg Laureate Forum/German Scholars Organization e.V. (2017)**
* **University of Texas (2016)**
* **University of London (2015)**
* **University of Illinois (2012)**

**invited participant**

* **Concordia Summit (2019), co-held with the UN General Assembly in New York City**: Roundtable on using Artificial intelligence for combating online sexual abuse of children
* **National Science Foundation Data Science Workshop (2015), held in Seattle:** NSF-funded workshop attended by Ph.D. level data scientists after a rigorous national selection process
* **Heidelberg Laureate Forum (2015), held in Heidelberg, Germany:** Invitation-only forum for 200 globally selected Math and CS students

**research mentor**

* **Shilpa Thomas (GNOME)**
* **Akarsh Dang (THOR)**
* **Jiayuan Ding (DIG, Commonsense Reasoning)**
* **Ravi Kiran Selvam (THOR; e-commerce knowledge graphs)**
* **Minda Hu (Social media analytics)**
* **Peilin Zhou (THOR)**
* **Shixiang Zhu (THOR; CauseEx)**
* **Xin Huang (THOR; GAIA)**
* **Xuefeng Yan (THOR; Knowledge Graph Embeddings Project)**
* **Jianheng Hou (THOR)**
* **Shuo Zhang (THOR; Fake News Project)**
* **Yao Gu (THOR; Human Trafficking Project)**
* **Mozhdeh Gheini (GAIA)**
* **Fan Pan (THOR)**
* **ZIhao Zhai (THOR)**
* **Haotian Zhang (THOR)**
* **Rahul Kapoor (DIG)**
* **Yixiang Yao (Record Linkage Toolkit)**
* **Pulkit Manocha (Record Linkage Toolkit)**
* **Jing Peng (THOR)**
* **Qiaozhi Song (THOR)**
* **Daye Nam (THOR; schema.org)**
* **Runqi Shao (DIG)**
* **I-Hui Huang (DSBox)**
* **Fanghao Luo (DSBox)**
* **Pratik Kabara (THOR)**

**TUTORIALS, CASE STUDIES AND DEMOS**

***Tutorial:*** AI, Networks and Society **Sep. 2019**

**Mayank Kejriwal**

Invited Annenberg Micro-seminar, University of Southern California

**Demo:** SAVIZ: Interactive Exploration and Visualization of Social Media over Crisis Data **Aug. 2019**

**Mayank Kejriwal** and Peilin Zhou

The IEEE/ACM ASONAM Conference in Vancouver, Canada 2019

**Demo:** Expert-Guided Entity Extraction using Expressive Rules **Jul. 2019**

**Mayank Kejriwal**, Runqi Shao and Pedro Szekely

The ACM SIGIR Conference in Paris, France 2019

**Case Study:** Reusing data and building upon it **Aug. 2018**

**Mayank Kejriwal,** Megan Hardeman and Team Figshare

Figshare case study [accessed online](https://figshare.com/articles/Reusing_data_and_building_upon_it_a_case_study_of_Computer_Scientist_Mayank_Kejriwal/6969503)

**Demo:** THOR: Text-enabled Humanitarian Operations in Real-time **Apr. 2018**

**Mayank Kejriwal**, Daniel GIlley, Pedro Szekely, Jill Crisman

The ACM Web Conference (formerly known as ACM WWW) in Lyon, France 2018

**Tutorial:** Social Media Analysis for Situation Awareness during Crises **Apr. 2018**

Gregoire Burel, **Mayank Kejriwal**, Prashant Khare, Pedro Szekely

Tutorial at the ACM Web Conference (formerly known as ACM WWW) in Lyon, France 2018

**Case Study:** Technology-assisted Investigative Search: A Case Study from an Illicit Domain **Apr. 2018**

**Mayank Kejriwal**, Pedro Szekely

Case Study at the ACM CHI Conference on Human Factors in Computing Systems in Montreal, Canada 2018

**Demo:** Unsupervised Hashtag Retrieval and Visualization for Crisis Informatics **Feb. 2018**

Yao Gu, **Mayank Kejriwal**

Workshop on Social Web in Emergency and Disaster Management (SWDM), co-held with the ACM Web Search and Data Mining (WSDM) Conference in Los Angeles, California

**Tutorial:** Knowledge Graph Construction from Web Corpora **Feb. 2018**

**Mayank Kejriwal,** Craig Knoblock andPedro Szekely

AAAI Conference, held in New Orleans

**Demo:** Constructing Domain-specific Search Engines with No Programming **Feb. 2018**

**Mayank Kejriwal,** Pedro Szekely

AAAI Conference, held in New Orleans

**Nominated for Best Demo**

**Demo:** A Semantic Search Engine for Investigating Human Trafficking **Oct. 2017**

**Mayank Kejriwal,** Pedro Szekely

International Semantic Web Conference (ISWC), held in Vienna, Austria

**Tutorial:** Constructing Domain-specific Knowledge Graphs (KGC) **Oct. 2017**

**Mayank Kejriwal**, Craig Knoblock, and Pedro Szekely

Full-day tutorial at International Semantic Web Conference (ISWC), 2017, held in Vienna, Austria

**Tutorial:** Data Mining in Unusual Domains with Information-rich Knowledge Graph Construction, Inference and Search

**Mayank Kejriwal** and Pedro Szekely **Aug.** **2017**

Conventional Tutorial at KDD, 2017, held in Halifax, Canada

**Tutorial:** Information Integration **Jul.** **2017**

**Mayank Kejriwal**

Tutorial at IS-GEO Summer Institute, 2017 held in Austin, TX

**BOOKS AND BOOK CHAPTERS**

Knowledge Graphs: Theory, Techniques and Applications **2020**

**Mayank Kejriwal**, Craig Knoblock, and Pedro Szekely

MIT Press

Chapter 33: Domain-specific Search Engines for Investigating Human Trafficking and Other Illicit Activities **Dec. 2019**

**Mayank Kejriwal**

Encyclopedia of Criminal Activities and the Deep Web

ISBN13: 9781522597155

DOI: 10.4018/978-1-5225-9715-5

[Encyclopedia Link](https://www.igi-global.com/book/encyclopedia-criminal-activities-deep-web/223181?utm_source=m&utm_medium=ac&utm_campaign=bec_to_prod&utm_content=12.05.2019)

Domain-specific Knowledge Graph Construction **2019**

**Mayank Kejriwal**

Springer Brief

[Book Purchase Link](https://www.springer.com/us/book/9783030123741)

Proceedings of the 2018 International Workshop on Learning Representations for Big Networks (BigNet@WWW2018) co-located with the International World Wide Web Conference (WWW 2018) **2018**

Editors: Jie Tang (Tsinghua University, China), Michalis Vazirgiannis (Ecole Polytechnique, France). Yuxiao Dong (Microsoft Research, Redmond, CA), Fragkiskos D. Malliaros (CentraleSupelec, France), Michael Cochez (Fraunhofer FIT, Germany), **Mayank Kejriwal (University of Southern California, USA),** Achim Rettinger (Karlsruhe Institute of Technology, Germany)

ISBN: 978-1-4503-5640-4

Archival Link: <https://dl.acm.org/citation.cfm?id=3192293>

Proceedings of the First Workshop on Deep Learning for Knowledge Graphs and Semantic Technologies (DL4KGS)

co-located with the 15th Extended Semantic Web Conference (ESWC 2018) **2018**

Editors (Alphabetical Order): Michael Cochez (Fraunhofer Institute for Applied Information Technology, Germany), Thierry Declerck (DFKI GmbH, Germany), Gerard de Melo (Rutgers University, USA), Luis Espinosa Anke (Cardiff University, UK), Besnik Fetahu (L3S Research Center, Germany), Dagmar Gromann (International Center for Computational Logic, Germany), **Mayank Kejriwal (University of Southern California, USA)**, Maria Koutraki (FIZ-Karlsruhe, Germany), Freddy Lecue (Accenture, Ireland), Enrico Palumbo (ISMB, Italy), Harald Sack (FIZ-Karlsruhe, Germany)

URN: urn:nbn:de:0074-2106-7

Archival Link: <http://ceur-ws.org/Vol-2106>

Joint Proceedings of the International Workshops on Hybrid Statistical Semantic Understanding and Emerging Semantics, and Semantic Statistics co-located with 16th International Semantic Web Conference (ISWC 2017) **2017**

Editors (Alphabetical Order): Sarven Capadisli (University of Bonn, Germany), Franck Cotton (INSEE, France), Xin Luna Dong (Amazon, USA), Ramanathan V. Guha (schema.org, USA), Armin Haller (ANU, Australia), Pascal Hitzler (Wright State University, USA), Evangelos Kalampokis (University of Macedonia, Greece), **Mayank Kejriwal (University of Southern California, USA)**, Freddy Lecue (Accenture Technology Labs, Ireland), D. Sivakumar (Google, USA), Pedro Szekely (University of Southern California, USA), Raphael Troncy (EURECOM, France) and Michael Witbrock (IBM, USA)

URN: urn:nbn:de:0074-1923-2

Archival Link: <http://ceur-ws.org/Vol-1923/>

Populating a Linked Data Entity Name System: A Big Data Solution for Unsupervised Instance Matching **2017**

**Mayank Kejriwal**

IOS Press, Studies in the Semantic Web Series

ISBN: 978-3-89838-717-0 2017

**PEER-REVIEWED PUBLICATIONS**

Co-LOD: Continuous Space Linked Open Data **Oct. 2019**

Outrageous ideas track

**Winner of Blue Sky Ideas award**

**Mayank Kejriwal,** Pedro Szekely

The 2019 International Semantic Web Conference, held in Auckland, New Zealand

Concept Drift in Bias and Sensationalism Detection: An Experimental Study **Aug. 2019**

Multi-disciplinary track

Shuo Zhang, **Mayank Kejriwal**

The 2019 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining, held in Vancouver, Canada

Low-supervision urgency detection and transfer in short crisis messages **Aug. 2019**

**Mayank Kejriwal**, Peilin Zhou

The 2019 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining, held in Vancouver, Canada

Network-theoretic information extraction quality assessment in the human trafficking domain **Jul. 2019**

**Mayank Kejriwal,** Rahul Kapoor

Applied Network Science, Elsevier

Unsupervised Product Entity Resolution using Graph Representation Learning **Jul. 2019**

Mozhdeh Gheini, **Mayank Kejriwal**

The ACM 2019 SIGIR Workshop on eCommerce, held in Paris, France

A Pipeline for Rapid Post-Crisis Twitter Data Acquisition, Filtering and Visualization **Apr. 2019**

**Mayank Kejriwal**, Yao Gu

MDPI Technologies, Special Issue on Multimedia and Cross-modal Retrieval

myDIG: Personalized Illicit Domain-Specific Knowledge Discovery with No Programming **Mar. 2019**

**Mayank Kejriwal**, Pedro Szekely

Future Internet

GAIA-A Multi-media Multi-lingual Knowledge Extraction and Hypothesis Generation System **Nov. 2018**

Tongtao Zhang, Ananya Subburathinam , Ge Shi , Lifu Huang , Di Lu , Xiaoman Pan , Manling Li , Boliang Zhang, Qingyun Wang , Spencer Whitehead , Heng Ji, Alireza Zareian , Hassan Akbari , Brian Chen , Ruiqi Zhong , Steven Shao , Emily Allaway , Shih-Fu Chang , Kathleen McKeown, Dongyu Li, Xin Huang, Kexuan Sun, Xujun Peng , Ryan Gabbard , Marjorie Freedman , Mayank Kejriwal , Ram Nevatia , Pedro Szekely, T.K. Satish Kumar, Ali Sadeghian , Giacomo Bergami , Sourav Dutta , Miguel Rodriguez,, Daisy Zhe Wang

Text Analysis Conference (TAC) KBP track, 2018

Structured Event Entity Resolution in Humanitarian Domains **Oct. 2018**

**Mayank Kejriwal,** Jing Peng, Haotian Zhang andPedro Szekely

International Semantic Web Conference (Research Track), held in Monterrey, California

P4ML: A Phased Performance-Based Pipeline Planner for Automated Machine Learning **Jul. 2018**

Yolanda Gil, Ke-Thia Yao, Varun Ratnakar, Daniel Garijo, Greg Ver Steeg, Pedro Szekely, Robert Brekelmans, **Mayank Kejriwal**, Fanghao Luo and I-Hui Huang

AutoML Workshop 2018 at the International Conference on Machine Learning (ICML) in Stockholm, Sweden

How do Organizations Publish Semantic Markup? Three Case Studies Using Public Schema.org Crawls **Jun. 2018**

Daye Nam, **Mayank Kejriwal**

IEEE Computer

Domain-specific Insight Graphs **Apr. 2018**

Pedro Szekely, **Mayank Kejriwal**

International Project track paper at the ACM Web Conference (formerly known as ACM WWW) in Lyon, France 2018

A Pipeline for Post-Crisis Twitter Data Acquisition **Feb. 2018**

**Mayank Kejriwal**, Yao Gu

Workshop on Social Web in Emergency and Disaster Management (SWDM), co-held with the ACM Web Search and Data Mining (WSDM) Conference in Los Angeles, California

Investigative Knowledge Discovery for Combating Illicit Activities **Feb. 2018**

**Mayank Kejriwal**, Pedro Szekely, Craig Knoblock

IEEE Intelligent Systems

Always Lurking: Understanding and Mitigating Bias in Online Human Trafficking Detection **Feb. 2018**

Kyle Hundman, Thamme Gowda, **Mayank Kejriwal** and Benedikt Boecking

AAAI/ACM Conference on AI, Ethics and Society (AIES), 2018, held in New Orleans, Louisiana

FlagIt: A System for Minimally Supervised Human Trafficking Indicator Mining **Dec. 2017**

**Mayank Kejriwal,** Jiayuan Ding, Runqi Shao, Anoop Kumar and Pedro Szekely

Workshop on Learning with Limited Labeled Data (LLD) at NIPS 2017, held in Long Beach, California

Knowledge Graphs for Social Good: An Entity-centric Search Engine for the Human Trafficking Domain **Nov. 2017**

**Mayank Kejriwal,** Pedro Szekely

IEEE Transactions on Big Data, Special Call on Knowledge Graphs

Neural Embeddings for Populated Geonames Locations **Oct. 2017**

**Mayank Kejriwal,** Pedro Szekely

International Semantic Web Conference (Resource Track), held in Vienna, Austria

An Investigative Search Engine for the Human Trafficking Domain **Oct. 2017**

**Mayank Kejriwal,** Pedro Szekely

International Semantic Web Conference (In-Use Track), held in Vienna, Austria

Scalable Generation of Type Embeddings using the ABox **Aug. 2017**

**Mayank Kejriwal**, Pedro Szekely

Open Journal of Semantic Web

Adaptive Candidate Generation for Scalable Edge-discovery Tasks on Data Graphs **Aug. 2017**

**Mayank Kejriwal**

MLG Workshop at ACM KDD, 2017, held in Halifax, Nova Scotia, Canada

Predicting Role Relevance with Minimal Domain Expertise in a Financial Domain **May 2017**

**Mayank Kejriwal**

DSMM Workshop at ACM SIGMOD, 2017, held in Chicago, Illinois

Using Contexts and Constraints for Improved Geotagging of Human Trafficking Webpages **May 2017**

Rahul Kapoor, **Mayank Kejriwal**, Pedro Szekely

GeoRich Workshop at ACM SIGMOD, 2017, held in Chicago, Illinois

Supervised Typing of Big Graphs using Semantic Embeddings **May 2017**

**Mayank Kejriwal**, Pedro Szekely

Semantic Big Data (SBD) Workshop at ACM SIGMOD, 2017, held in Chicago, Illinois

Information Extraction in Illicit Domains **Apr. 2017**

**Mayank Kejriwal**, Pedro Szekely

ACM World Wide Web Conference, 2017, held in Perth, Australia

Local, Domain-independent Heuristics for the FEIII Challenge: Lessons and Observations **Jun. 2016**

**Mayank Kejriwal**, Daniel P. Miranker

DSMM Workshop at ACM SIGMOD, 2016, held in San Francisco, California

A Pipeline for Extracting and Deduplicating Domain-Specific Knowledge Bases **Oct. 2015**

**Mayank Kejriwal**, Qiaoling Liu, Ferosh Jacob and Faizan Javed

Industry track in the IEEE International Conference on Big Data, held in Santa Clara, California

Decision-making Bias in Instance Matching Model Selection **Oct. 2015**

**Mayank Kejriwal**, Daniel P. Miranker

The 14th International Semantic Web Conference, held in Bethlehem, Pennsylvania

An Unsupervised Instance Matcher for Schema-free RDF Data **Jul. 2015**

**Mayank Kejriwal**, Daniel P. Miranker

The Journal of Web Semantics

Sorted Neighborhood for Schema-free RDF Data **May 2015**

**Mayank Kejriwal**, Daniel P. Miranker

***Winner of best paper award***

The 4th Knowledge Discovery and Data Mining meets Linked Open Data workshop,

The 12th European Semantic Web Conference, held in Portoroz, Slovenia

Semi-supervised Instance Matching using Boosted Classifiers **May 2015**

**Mayank Kejriwal**, Daniel P. Miranker

The 12th European Semantic Web Conference, held in Portoroz, Slovenia

Entity Resolution in a Big Data Framework **Jan. 2015**

**Mayank Kejriwal**

Doctoral consortium, the 29th Conference on Artificial Intelligence (AAAI), held in Austin, TX

Populating Entity Name Systems for Big Data Integration **Oct. 2014**

**Mayank Kejriwal**

The 13th International Semantic Web Conference, held in Riva Del Garda, Italy

A Two-Step Blocking Scheme Learner for Scalable Link Discovery **Oct. 2014**

**Mayank Kejriwal** and Daniel P. Miranker

The 9th International Workshop on Ontology Matching at the 13th International Semantic Web Conference, held in Riva Del Garda, Italy

Schema Matching over Relations, Attributes and Data Values **Jul. 2014**

Aibo Tian, **Mayank Kejriwal** and Daniel P. Miranker

The 26th International Conference on Scientific and Statistical Database Management, held in Aalborg, Denmark

An Unsupervised Algorithm for Learning Blocking Schemes **Dec. 2013**

**Mayank Kejriwal** and Daniel P. Miranker

The 13th IEEE International Conference on Data Mining, held in Dallas, Texas

Extended Scaled Neural Predictor for Improved Branch Prediction **Aug. 2013**

Zihao Zhou, **Mayank Kejriwal** and Risto Miikkulainen

The IEEE International Conference on Neural Networks, held in Dallas, Texas

A Framework to Access Handwritten Information within Large Digitized Paper Collections **Oct. 2012**

Liana Diesendruck, Luigi Marini, Rob Kooper, **Mayank Kejriwal** and Kenton McHenry

The 8th IEEE International Conference on eScience, held in Chicago, Illinois

Digitization and search: A non-traditional use of HPC **Oct. 2012**

Liana Diesendruck, Luigi Marini, Rob Kooper, **Mayank Kejriwal** and Kenton McHenry

The 8th IEEE International Conference on eScience, held in Chicago, Illinois

**ABSTRACTS, posters, newsletters AND PREss**

Crisis Management: Using Artificial Intelligence to help save lives **Dec. 2019**

Article in Research Outreach, Issue 111

[Article Link](https://researchoutreach.org/articles/crisis-management-artificial-intelligence-save-lives/)

Featured Post on Computing Community Consortium (CCC) Website **Nov. 2019**

Co-LOD: Continuous Space Linked Open Data

[Article Link](https://cra.org/ccc/co-lod-continuous-space-linked-open-data/)

Computing Community Consortium (CCC) Blog **Nov. 2019**

Great Innovative Idea: Co-LOD: Continuous Space Linked Open Data

Post by Helen Wright

[Post Link](https://www.cccblog.org/2019/11/12/great-innovative-idea-co-lod-continuous-space-linked-open-data/)

Interview **Oct. 2019**

365 Data Science

[Interview Link](https://365datascience.com/interview-mayank-kejriwal/)

Featured Interview **Aug. 2019**

ISI quarterly newsletter

Measuring without labels: a different approach to information extraction **Jul. 2019**

SpringerOpen invited blog post

[Article Link](http://blogs.springeropen.com/springeropen/2019/07/22/measuring-without-labels/)

Mayank Kejriwal, 2019 Copper Black Award winner **Jun. 2019**

Press release by Mensa Foundation

[Article Link](https://www.mensafoundation.org/what-we-do/awards-and-recognition/copper-black-award-for-creative-achievement/copper-black-winners/2019-mayank-kejriwal/)

Ep 50: Artificial Intelligence – Fighting Human Trafficking **Apr. 2019**

Folksalert podcast episode featuring Mayank Kejriwal

[Podcast Link](https://m.soundcloud.com/folksalert-app/ep-50-artificial-intelligence-fighting-human-trafficking)

myDIG: A system for building domain-specific search engines **Mar. 2019**

Contributed article to encyclopedia.pub

[Entry Link](https://encyclopedia.pub/133)

Let’s embed everything! **Feb. 2019**

Featured post on Open Data Science

[Article Link](https://opendatascience.com/word-embedding-and-natural-language-processing/)

Video Interview on AI for Social Good **Nov. 2018**

Pioneer Ventures: AI Frontiers

[Video Link](https://www.youtube.com/watch?v=Hl0rPIHwP5U&feature=youtu.be)

Projects featured in SoCal DB Day talk **Oct. 2018**

Talk by Shahram Ghandeharizadeh (USC)

[SoCal DB 2018 Link](https://sites.google.com/eng.ucsd.edu/socaldb18)

Technology for Good: Fighting Human Trafficking with Artificial Intelligence

Invited piece written by Mayank Kejriwal **Aug. 2018**

IVY Magazine

[Article Link](http://magazine.ivy.com/2018/08/technology-good-fighting-human-trafficking-artificial-intelligence/)

Making Waves - ONDA News **Jul. 2018**

Featured on Patron Spotlight

Fighting Human Traffickers

Press feature written by Lori Cameron **Jun. 2018**

IEEE Intelligent Systems

[Article Link](https://publications.computer.org/intelligent-systems/2018/06/07/human-sex-trafficking-dark-web-ai-investigation-tool/)

Building Knowledge Graphs for Social Good **Apr. 2018**

USC Center for Artificial intelligence in Society

Seminar Summary by Nicole Wilson

[Summary Link](https://www.cais.usc.edu/news/dr-mayank/)

Breaking the Cycle of Victimization

Press feature written by Marc Ballon **Apr. 2018**

USC Viterbi Magazine

[Article Link](https://magazine.viterbi.usc.edu/spring-2018/features/breaking-the-cycle-of-victimization/)

Always Lurking: Understanding and Mitigating Bias in Online Human Trafficking Detection **Feb. 2018**

Kyle Hundman, Thamme Gowda, **Mayank Kejriwal** and Benedikt Boecking

Poster presented at AAAI/ACM Conference on AI, Ethics and Society (AIES), 2018, held in New Orleans, Louisiana

FlagIt: A System for Minimally Supervised Human Trafficking Indicator Mining **Dec. 2017**

**Mayank Kejriwal**, Jiayuan Ding, Runqi Shao, Anoop Kumar and Pedro Szekely

Poster in Workshop on Learning with Limited Labeled Data (LLD) at NIPS 2017, held in Long Beach, California

ISI press release on winning best dissertation award **Aug. 2017**

[Article Link](https://www.isi.edu/news/story/301)

Semi-automatic Data Integration using Karma **Dec. 2017**

**Mayank Kejriwal**, Daniel Garijo, Yolanda Gil, Daniel Hardesty Lewis, Perry Ivan Quinto Houser, Craig Knoblock, Scott Dale Peckham, Deana Pennington, Suzanne Pierce, Zachary Stanko

Abstract in American Geophysical Union (AGU) Fall 2017 meeting, New Orleans

Populating a Linked Data Entity Name System **Jun. 2017**

**Mayank Kejriwal**

Dissertation abstract in AI Matters

Authored piece on Semantic Web published on the AI Topics website **Apr.2017**

[Article](https://aitopics.org/class/Technology/IT/Communications/Web/Semantic%20Web) Link

Authored piece on Games and AI published on the AI Topics website **Apr. 2017**

[Article Link](https://aitopics.org/class/Technology/IT/ai/Games)

End Human Trafficking Hackathon **Oct. 2016**

Hackathon was featured in [NY Daily News](http://www.nydailynews.com/new-york/nyc-crime/student-hackers-manhattan-da-fight-human-trafficking-article-1.2821657?cid=bitly); served as mentor to students

The Summer of Data Science **Oct. 2015**

Quoted in blog post by Kristin Tolle, Director of Data Science at Microsoft Research

Populating a Linked Data Entity Name System **Aug. 2015**

**Mayank Kejriwal**, Daniel P. Miranker

Poster at the Heidelberg Laureate Forum, held in Heidelberg, Germany

Unsupervised Instance Matching on Schema-free Linked Data **Aug. 2015**

**Mayank Kejriwal**, Daniel P. Miranker

Poster at the National Science Foundation Data Science Workshop, held in Seattle, Washington

Minimally Supervised Instance Matching: An Alternate Approach **May 2015**

**Mayank Kejriwal**, Daniel P. Miranker

Poster and abstract at the 12th European Semantic Web Conference, held in Portoroz, Slovenia

The Math Behind…The Web of Linked Data **Mar. 2015**

**Mayank Kejriwal**

Poster for the SIAM: Math Matters, Apply It! program

A Sorted Neighborhood Workflow for the Semantic Web **Jan. 2015**

**Mayank Kejriwal** and Daniel P. Miranker

Poster and abstract at the 29th Conference on Artificial Intelligence (AAAI)

On Linking Heterogeneous Dataset Collections **Oct. 2014**

**Mayank Kejriwal** and Daniel P. Miranker

Poster and abstract at the 13th International Semantic Web Conference, held in Riva Del Garda, Italy

Populating Entity Name Systems for Big Data Integration **Oct. 2014**

**Mayank Kejriwal** and Daniel P. Miranker

Doctoral Consortium Poster at the 13th International Semantic Web Conference, held in Riva Del Garda, Italy

An Unsupervised Algorithm for Learning Blocking Schemes **Dec. 2013**

**Mayank Kejriwal** and Daniel P. Miranker

Poster at the 13th IEEE International Conference on Data Mining, held in Dallas, Texas

Extended Scaled Neural Predictor for Improved Branch Prediction **Aug. 2013**

Zihao Zhou, **Mayank Kejriwal** and Risto Miikkulainen

Poster at the IEEE International Conference on Neural Networks, held in Dallas, Texas

Digitization and Search: A Non-Traditional Use of HPC **Oct. 2012**

Liana Diesendruck, Luigi Marini, Rob Kooper, **Mayank Kejriwal** and Kenton McHenry

Poster and abstract at the 8th IEEE International Conference on eScience, held in Chicago, Illinois

Toward Free and Searchable Historical Census Images **Sep. 2011**

Kenton McHenry, Luigi Marini, **Mayank Kejriwal**, Rob Kooper and Peter Bajcsy

* Published as an article in the Electronic Imaging & Signal Processing section by the International Society for Optics and Photonics

[Article Link](http://spie.org/news/3833-towards-free-and-searchable-historical-census-images?SSO=1)

* Published as a technical article in infoDOCKET

[Article Link](https://www.infodocket.com/2011/09/23/tech-article-toward-free-and-searchable-historical-census-images/)

**technical REPORTS**

A Pipeline for Post-Crisis Twitter Data Acquisition **Jan. 2018**

**Mayank Kejriwal,** Yao Gu

Technical Report (arXiv: 1801.05881)

Unsupervised Hashtag Retrieval and Visualization for Crisis Informatics **Jan. 2018**

Yao Gu, **Mayank Kejriwal**

Technical Report (arXiv: 1801.05906)

FlagIt: A System for Minimally Supervised Human Trafficking Indicator Mining **Dec. 2017**

**Mayank Kejriwal**, Jiayuan Ding, Runqi Shao, Anoop Kumar and Pedro Szekely

Technical Report (arXiv: 1712.03086)

Predicting Role Relevance with Minimal Domain Expertise in a Financial Domain **Apr. 2017**

**Mayank Kejriwal**

Technical Report (arXiv:1704.05571)

Using Contexts and Constraints for Improved Geotagging of Human Trafficking Webpages **Apr. 2017**

Rahul Kapoor, **Mayank Kejriwal** and Pedro Szekely

Technical Report (arXiv:1704.05569)

Supervised Typing of Big Graphs using Semantic Embeddings **Mar. 2017**

**Mayank Kejriwal** and Pedro Szekely

Technical Report (arXiv:1703.07805)

Information Extraction in Illicit Domains **Mar. 2017**

**Mayank Kejriwal** and Pedro Szekely

Technical Report (arXiv:1703.03097)

Experience: Type alignment on DBpedia and Freebase **Aug. 2016**

**Mayank Kejriwal** and Daniel P. Miranker

Technical Report (arXiv:1608.04442)

Self-contained NoSQL Resources for Cross-Domain RDF **Aug. 2016**

**Mayank Kejriwal** and Daniel P. Miranker

Technical Report (arXiv:1608.04437)

On the Complexity of Sorted Neighborhood **Jan. 2015**

**Mayank Kejriwal** and Daniel P. Miranker

Technical Report (arXiv:1501.01696)

A DNF Blocking Scheme Learner for Heterogeneous Datasets **Jan. 2015**

**Mayank Kejriwal** and Daniel P. Miranker

Technical Report (arXiv:1501.01694)

N-Way Heterogeneous Blocking **Feb. 2014**

**Mayank Kejriwal** and Daniel P. Miranker

Regular Technical Report (TR-14-06), University of Texas at Austin

**talks**

Using Artificial Intelligence to assist law enforcement to crack down on human trafficking **Feb. 2020**

Keynote talk at the Telesign and Data Skeptic Meetup in Marina del Rey, California

Fighting Child Sex Trafficking with Artificial Intelligence **Jan. 2020**

Keston talk at the ISI institute-wide retreat in Redondo Beach, California

Fighting Human Trafficking with Technology **Dec. 2019**

Invited talk at the National University for Juridical Sciences (NUJS) in Kolkata, India

Knowledge Graphs: An Accessible and Applied Overview **Nov. 2019**

Invited talk at Purdue University in West Lafayette, Indiana

EMI: Embed, Measure and Iterate **Nov. 2019**

Invited talk at Open Data Science Conference (ODSC-West) in San Francisco, California

Artificial Intelligence **Nov. 2019**

Invited outreach talk at the California Institution for Men in Chino, California

Is a Knowledge Graph right for me? **Oct. 2019**

Invited talk at the IDEAS Southern California Conference held in Los Angeles, California

AI, Networks and Society **Sep. 2019**

Invited Micro-seminar at the USC Annenberg School of Communication

Executive Briefing: An Age of Embeddings **Sep. 2019**

Invited talk at O’Reilly AI Conference in San Jose, California

Low-supervision urgency detection and transfer in short crisis messages **Aug. 2019**

The IEEE/ACM ASONAM Conference in Vancouver, Canada

Concept Drift in Bias and Sensationalism Detection: An Experimental Study **Aug. 2019**

The IEEE/ACM ASONAM Conference in Vancouver, Canada

Why should I build a knowledge graph? **Aug. 2019**

Invited talk at the Global Big Data Conference, San Jose

Data Science Education **May 2019**

Invited talk at the Data Science Conference, Boston

Applying Noisy Knowledge Graphs to Real Problems **May 2019**

Invited talk at the DataWorks Summit, Washington, DC

Let’s embed everything! **May 2019**

Invited talk at ODSC East, Boston

Fighting Human Trafficking with AI **Jan. 2019**

Invited talk at Texas AI Summit

Let’s embed everything! **Jan. 2019**

Invited talk at Data Day Texas

Behavioral Interview Seminar for Graduate Students **Nov. 2018**

USC Information Sciences Institute

Applying Noisy Knowledge Graphs to Real Problems **Nov. 2018**

Invited talk at Home Depot in Atlanta, Georgia

Knowledge Graphs: A Lingua Franca for Humans and Machines? **Nov. 2018**

Invited workshop talk at Open Data Science Conference (ODSC-West) in San Francisco, California

Structured Event Entity Resolution in Humanitarian Domains **Oct. 2018**

The 17th International Semantic Web Conference, held in Monterrey, California

Fighting Human Trafficking with AI **Sep. 2018**

Invited talk at O’Reilly AI Conference in San Francisco, California

Technology-assisted Investigative Search: A Case Study from an Illicit Domain **Apr. 2018**

Talk at the ACM CHI Conference on Human Factors in Computing Systems in Montreal, Canada

Building Knowledge Graphs for Social Good **Mar. 2018**

Spring Seminar Series, USC Center for Artificial Intelligence in Society (CAIS)

The Many Face(t)s of Knowledge Graphs: In Vivo vs. In Vitro **Feb. 2018**

Research Breakfast Seminar Series, USC Information Sciences Institute

Building Advanced Search and Analytics Engines over Arbitrary Domains...Without a Data Scientist **Jan. 2018**

Invited speaker at Data Day Texas

Building Domain-specific Search Engines for Investigative Decision Support **Jan. 2018**

Invited seminar presentation: USC Department of Industrial and Systems Engineering

On the Future of the Semantic Web **Dec. 2017**

Invited presentation at the Digital Turn in Comparative Constitutionalism Workshop, held in Hannover, Germany

Neural Embeddings for Populated Geonames Locations **Oct. 2017**

International Semantic Web Conference, held in Vienna, Austria

An Investigative Search Engine for the Human Trafficking Domain **Oct. 2017**

International Semantic Web Conference, held in Vienna, Austria

From Noisy Information Extraction to Rich Information Retrieval in Unusual Domains **Jun. 2017**

NLP Seminar, USC Information Sciences Institute

Predicting Role Relevance with Minimal Domain Expertise in a Financial Domain **May 2017**

DSMM Workshop at ACM SIGMOD, 2017, held in Chicago, Illinois

Using Contexts and Constraints for Improved Geotagging of Human Trafficking Webpages **May 2017**

GeoRich Workshop at ACM SIGMOD, 2017, held in Chicago, Illinois

Populating a Linked Data Entity Name System **Apr. 2016**

Ph.D. Final Defense, University of Texas at Austin

Committee: Daniel P. Miranker (chair), Raymond Mooney, Joydeep Ghosh, Risto Miikkulainen and Eric Price

Populating a Linked Data Entity Name System **Apr. 2016**

AI Seminar: Interview Talk

USC Information Sciences Institute

Decision-making Bias in Instance Matching Model Selection **Oct. 2015**

The 14th International Semantic Web Conference, held in Bethlehem, Pennsylvania

Sorted Neighborhood for Schema-free RDF Data **May 2015**

The 4th Knowledge Discovery and Data Mining meets Linked Open Data workshop,

The 12th European Semantic Web Conference, held in Portoroz, Slovenia

Semi-supervised Instance Matching using Boosted Classifiers **May 2015**

The 12th European Semantic Web Conference, held in Portoroz, Slovenia

Entity Resolution in a Big Data Framework **Jan. 2015**

Doctoral consortium, the 29th Conference on Artificial Intelligence (AAAI)

Populating a Linked Data-based Entity Name System **Nov. 2014**

Ph.D. Oral Proposal, University of Texas at Austin

Committee: Daniel P. Miranker (chair), Raymond Mooney, Joydeep Ghosh, Risto Miikkulainen and Eric Price

Populating Entity Name Systems for Big Data Integration **Oct. 2014**

The 13th International Semantic Web Conference, held in Riva Del Garda, Italy

A Two-Step Blocking Scheme Learner for Scalable Link Discovery **Oct. 2014**

The 9th International Workshop on Ontology Matching at the 13th International Semantic Web Conference, held in Riva Del Garda, Italy

Populating an Entity Name System **Mar. 2014**

Research Preparation Exam, University of Texas at Austin

Committee: Daniel P. Miranker (chair), Greg Plaxton and Pradeep Ravikumar

An Unsupervised Algorithm for Learning Blocking Schemes **Dec. 2013**

The 13th IEEE International Conference on Data Mining, held in Dallas, Texas

Machine Learning Techniques for Offline Handwriting Transcription **Dec. 2012**

Undergraduate honors thesis presentation at the University of Illinois at Urbana-Champaign