

Subhro Roy

CONTACT INFORMATION	223, Concord Turnpike, Apt-279 Cambridge, MA-02140 WWW : http://sroy9.github.io	Mobile: +1-(217)-402-4760 E-mail: subhro@csail.mit.edu
POSITIONS	Massachusetts Institute of Technology Postdoctoral Associate Advisor: Prof. Nicholas Roy	Aug 2017 - present
EDUCATION	University of Illinois, Urbana Champaign Ph.D., Computer Science, 2017 Thesis: Reasoning about Quantities in Natural Language Advisor: Prof. Dan Roth Indian Institute of Technology, Kharagpur B.Tech, Computer Science and Engineering, 2012 GPA: 9.52/10.0 (Ranked 2nd in the department)	
RESEARCH INTERESTS	Language Grounding, Semantic Parsing, Knowledge Acquisition, Natural Language Processing, Machine Learning	
JOURNAL PUBLICATIONS	<i>Leveraging Past References for Robust Language Grounding</i> (under submission) Michael Noseworthy*, Subhro Roy* , Rohan Paul, Daehyung Park and Nicholas Roy <i>Mapping to Declarative Knowledge for Word Problem Solving</i> Subhro Roy and Dan Roth TACL 2018 <i>Reasoning about Quantities in Natural Language</i> Subhro Roy , Tim Vieira and Dan Roth TACL 2015	
CONFERENCE PUBLICATIONS	<i>Grounding Robot Plans from Natural Language Instructions with Incomplete World Knowledge</i> Daniel Nyga*, Subhro Roy* , Rohan Paul*, Daehyung Park, Mihai Pomarlan, Michael Beetz and Nicholas Roy CoRL 2018 <i>Real-Time Human-Robot Communication for Manipulation Tasks in Partially Observed Environments</i> Jacob Arkin, Rohan Paul, Daehyung Park, Subhro Roy , Nicholas Roy and Thomas M. Howard ISER 2018 <i>CogCompNLP: Your Swiss Army Knife for NLP</i> D. Khashabi, M. Sammons, B. Zhou, T. Redman, C. Christodoulopoulos, V. Srikumar, N. Rizzolo, L. Ratnov, G. Luo, Q. Do, C. Tsai, S. Roy , S. Mayhew, Z. Feng, J. Wieting, X Yu , Y. Song , S. Gupta S. Upadhyay , N. Arivazhagan , Q. Ning , S. Ling and D. Roth LREC 2018 <i>Unit Dependency Graph and its Application to Arithmetic Word Problem Solving</i> Subhro Roy and Dan Roth AAAI 2017 <i>Equation Parsing: Mapping Sentences to Grounded Equations</i> Subhro Roy , Shyam Upadhyay and Dan Roth EMNLP 2016	

*Approximating the Maximum Overlap of Polygons under Translation***

Sariel Har-Peled and **Subhro Roy**

Algorithmica 2016

MAWPS: A Math Word Problem Repository

Rik Koncel-Kedziorski*, **Subhro Roy***, Aida Amini, Nate Kushman and Hannaneh Hajishirzi

NAACL 2016

Solving General Arithmetic Word Problems

Subhro Roy and Dan Roth

EMNLP 2015

*Approximating the Maximum Overlap of Polygons under Translation***

Sariel Har-Peled and **Subhro Roy**

ESA 2014

Learning for Mining Outlier Subgraphs from Network Datasets

M. Gupta, A. Mallya, **S. Roy**, J. Cho, J. Han

SDM 2014

* denotes equal contribution

** denotes author names in alphabetical order

WORKSHOPS
AND
DEMOS

Illinois Math Solver: Math Reasoning on the Web

Subhro Roy and Dan Roth

NAACL Demonstrations 2016

Illinois CCG TAC 2015 Event Nugget, Entity Discovery And Linking, and Slot Filler Validation Systems

M. Sammons, H. Peng, Y. Song, S. Upadhyay, C. Tsai, P. Reddy, **S. Roy**, D. Roth

TAC 2015

The University Of Illinois Submission to the WMT 2015 Shared Translation Task

L. Schwartz, B. Bryce, C. Geigle, S. Massung, Y. Liu, H. Peng, V. Raja, **S. Roy**, S. Upadhyay

Workshop on Statistical Machine Translation 2015

Illinois Cognitive Computation Group UI-CCG TAC 2013 Entity Linking and Slot Filler Validation Systems

X. Cheng, B. Chen, R. Samdani, K. Chang, Z. Fei, M. Sammons, J. Wieting, **S. Roy**, C. Wang, D. Roth

TAC 2013

PACKAGES
DEVELOPED

Illinois Quantifier - detects and normalizes phrases containing quantifiable information in text, and normalizes them to a standard form.

Illinois Math Solver - automatically solves arithmetic word problems.

MAJOR
PROJECTS

Robotics Collaborative Technology Alliance (RCTA) or the US Army Research Labs (ARL), USA Human-Robot Interaction and Intelligence for Human-Robot Teams in army scenarios. Lead Postdoc representing MIT as an alliance member with several other academic and research institutions across the US.

Toyota Research Institute (TRI), USA Project titled Reading the Mind with Language and Vision. Application domain autonomous cars and home service robots. Lead Postdoc representing Robust Robotics Group. Collaborative project with the Center for Brains Minds and Machines at CSAIL, MIT.

INTERNSHIPS	Allen Institute for Artificial Intelligence, Seattle Supervisor : Mark Hopkins Open domain algebra word problem solver	May-Jul 2016
	Microsoft Research, Redmond, USA Supervisor : Scott Yih, Ming-wei Chang, Chris Meek Relation extraction for knowledge base completion.	May-Aug 2015
	Google, Mountain View, USA Supervisor : J.D. Chen Understanding reviews for apps.	May-Aug 2014
	ETH Zurich, Switzerland Supervisor : Prof. Angelika Steger, Institute of Theoretical Computer Science Neural structure of the brain, to learn relations.	May-July 2011
HONOURS AND AWARDS	<ul style="list-style-type: none"> • List of Teachers Ranked as Outstanding by Their Students, UIUC, Spring 2017. • List of Teachers Ranked as Excellent by Their Students, UIUC, Fall 2013. • Felicitated by the Governor of West Bengal for securing 2nd position in the state in ICSE 2006, and 5th position in ISC 2008 Examination. • Selected among top 30 students from the state of West Bengal in Indian National Mathematical Olympiad, 2007 • Selected among top 1% students from all over India in Indian National Chemistry Olympiad, 2007 • Secured 2nd position in Yahoo HackU contest. Developed an online Railway Reservation system for Indian Railways • Recipient of the Kishore Vaigyanik Protsahan Yojana (KVPY) Scholarship, awarded by the Department of Science and Technology, Government of India, 2006 • Recipient of O.P.Jindal Engineering and Management Scholarship (OPJEMS), 2010 • Recipient of Goralal Syngal Memorial Scholarship, IIT Kharagpur 	
TEACHING EXPERIENCE	<ul style="list-style-type: none"> • Teaching Assistant for Machine Learning, Spring 2017 • Teaching Assistant for Undergraduate Algorithms, Fall 2013 • Teaching Assistant for Undergraduate Algorithms, Spring 2013 • Teaching Assistant for Ethical and Professional Issues in CS course, Fall 2012 	
SERVICE	Reviewer : ICML 2015, TACL 2015, AAI 2016, IJCAI 2016, EMNLP 2017, ICLR 2018, IJRR 2018. IROS 2018, CoRL 2018, EMNLP 2018, ICLR 2018, ACL 2019 PC Member : AAI 2018, ACL 2018, NAACL 2019 SPC Member : AAI 2019	