Indira Sen

Computer Science P.H.D Candidate interested in the application of NLP methods in Computational Social Science

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Education

GESIS - Leibnitz Institute for Social Sciences and University of Koblenz *Cologne, Germany*
P.H.D in Computer Science *2018 - Present*
Advisor: Prof. Claudia Wagner

Indraprastha Institute of Information Technology (IIIT-D) *New Delhi, India*
M.S in Computer Science *2015 - 2017*
Advisor: Prof. Ponnurangam Kumaraguru (PK)
GPA: 8.67/10

Vellore Institute of Technology (VIT) *Vellore, India*
B.S in Computer Science *2010 - 2014*
GPA: 9.1/10

Publications

Preprints

A Total Error Framework for Digital Traces of Humans *2019*
Indira Sen, Fabian Floeck, Katrin Weller, Bernd Weiss, and Claudia Wagner. ArXiv preprint, arXiv:1907.0822

Conference Articles

Empowering First Responders through Automated Multimodal Content Moderation *2018*
Divam Gupta, Indira Sen, Niharika Sachdeva, Ponnurangam Kumaraguru, Arun Balaji Buduru. *Best Paper Award*
IEEE International Conference on Cognitive Computing

Worth its Weight in Likes: Towards Detecting Fake Likes on Instagram *2018*
Indira Sen, Anupama Aggarwal, Shiven Mian, Siddharth Singh, Ponnurangam Kumaraguru, Anwitaman Datta.
WebSci 2018, short paper

Workshop Articles

A Twitter Corpus for Hindi-English Code Mixed POS Tagging *2018*
Kushagra Singh, Indira Sen, Ponnurangam Kumaraguru. *Data Paper*
Workshop on Natural Language Processing for Social Media (SocialNLP), In conjunction with ACL

Language Identification and Named Entity Recognition in Hinglish Code Mixed Tweets *2018*
Kushagra Singh, Indira Sen, Ponnurangam Kumaraguru. ACL Student Research Workshop

Experience

Precog Research Lab, IIIT Delhi *New Delhi, India*
Research Associate. Advisors: Prof. Ponnurangam Kumaraguru and Prof. Arun Balaji Buduru *Dec 2017 - Aug 2018*
- Landscaping the fake like marketplace on Instagram and characterizing fake likers, and their attack vectors.
- Detecting Multimodal Hatespeech on Social Media

CHILI Lab, École polytechnique fédérale de Lausanne *Lausanne, Switzerland*
Summer Intern, Advisor: Prof. Pierre Dillenbourg *Jun 2017– Aug 2017*
- One of the 50 selected out of 2000+ applicants worldwide, via Summer@EPFL.
- Worked on inferring dependencies between EPFL courses based on Concept Mining and grading patterns

Nanyang Technological University *Singapore*
Research Assistant, Advisor: Prof. Anwitaman Dutta *Jan 2017– May 2017*
- Master's Thesis: Worked on detecting fake engagement on Instagram.

Teaching, Mentorship and Academic Service

Translation Tutorial on the Total Error Paradigm for Social Inferences
Barcelona, Spain

FAT* 2020 (Upcoming)
Jan 2020

- We will first introduce the audience to the concepts and guidelines of the TSE and how they are applied by survey practitioners in the social sciences.
- We will introduce our own conceptual framework to diagnose, understand, and avoid errors that may occur in studies that are based on digital traces of humans, leveraging the systematic approach of the TSE and mapping its concepts to digital trace settings where applicable.

Introduction to Python
Cologne, Germany

University of Cologne
Oct, 2019

- Interactive, hands-on two-day lecture series for teaching introductory python concepts to social science doctoral candidates
- Received highly positive feedback

Teaching Assistant
New Delhi, Indira

IIIT Delhi
2015 - 2017

- Linear Algebra
- Foundations of Computer Security

Thesis Mentor
New Delhi, India

IIIT Delhi

- Vani Agarwal. Master's Thesis. Improving Content Moderation through Co-Training
- Kushagra Singh. Bachelor's Thesis. Information Extraction Tools for Code-Mixed Hindi-English Social Media Content

EuroCSS 2018
Cologne, Germany

Student Volunteer
Dec, 2018

CSCW 2019
May, 2019

Student Reviewer

- Reviewed a paper as a part of the CSCW Student Reviewer Mentorship program under the mentorship of a senior reviewer.

Honors & Awards

2019	**Travel Grant**, For attending Summer Institute in Computational Social Science (SICCS), Germany	*Bamberg, Germany*
2017	**TA Excellence Award**, Foundations of Computer Security	*IIIT-Delhi, India*
2015 2016	**Dean's Merit List**, For Academic Performance	*IIIT-Delhi, India*
2015 2011	**GATE Scholarship**, Scholarship for Master's Studies	
2012 2013 2014	**Merit Scholarship**, For Outstanding Academic Achievement	*VIT, Vellore*
2014	**Finalist**, Stanford Biodesign Competetion	*New Delhi, India*

Skills

Programming

Python, R, Java, C++, C, MongoDB, SQL, Bash, Javascript,

Libraries/Tools

scikit-learn, pytorch, tensorflow, pandas, NLTK, NetworkX