

## The 2019 Singapore Symposium on Natural Language Processing

<https://wing.comp.nus.edu.sg/~ssnlp/>

The Singapore Symposium on Natural Language Processing (SSNLP) is an annual Singapore-based meetup for people interested and passionate about NLP. In 2019, SSNLP comprised a full program of invited talks by leading researchers, poster presentations, and a panel discussion on Ethics in AI with leading experts from industry and academia. It also served as a platform to socialize within our burgeoning community over an invited banquet dinner.

SSNLP 2019 was hosted by the National University of Singapore (NUS). The general chair was Dr. Min-Yen Kan of NUS, while Dr. Kokil Jaidka (now at NUS) and Dr. Soujanya Poria (now at the Singapore University of Technology and Design, SUTD) were the Program Committee chairs. A host of co-organizers, such as Dr. Wei Lu from SUTD and Dr. Nancy Chen from the Institute for Infocomm Research (I2R) were instrumental in the coordination and planning efforts.

SSNLP had a sold-out online registration of over 250 participants for the first day of talks, and dozens registered on the spot throughout the day. The cost was borne by a sponsorship amount of S \$17,000 obtained jointly from SG-Innovate and AFNLP. Additionally, A\*STAR wholly sponsored one of the six keynote speakers, and SUTD sponsored the tokens of appreciation for the keynote speakers.

Day 1 of the symposium was hosted at the Multi-Purpose Hall at Innovis. Six international invited keynote speakers highlighted the state of the art in NLP approaches across various research problems:

- Dr. Heng Ji, a professor at the Computer Science Department of the University of Illinois at Urbana-Champaign, talked about cross-lingual and cross-media transfer of semantic structures to automatically infer knowledge from event and news data.
- Dr. William Wang, an Assistant Professor in the Department of Computer Science at the University of California, Santa Barbara, discussed his latest research in self-supervised natural language processing.
- Dr. Rada Mihalcea, a Professor of Computer Science and Engineering at the University of Michigan and the Director of the Michigan Artificial Intelligence Lab, presented on the advantages and disadvantages of following a word embeddings-based approach for NLP applications.
- Dr. John McCrae, a lecturer above-the-bar at the Data Science Institute and Insight Centre for Data Analytics at the National University of Ireland Galway, shared his efforts to build a semantically linked database of low-resource languages that would allow for diachronic and synchronic analysis of lexical changes.
- Dr. Eduard Hovy, a Professor at the Language Technologies Institute in the School of Computer Science at Carnegie Mellon University, outlined the major problems in complex question answering and identified directions for future research.

- Dr. Preslav Nakov, a Principal Scientist at the Qatar Computing Research Institute (QCRI), HBKU, reported on his efforts to build and release a digital literacy tool for scoring news bias and detecting fake news using NLP techniques.

Tea and lunch sessions also served as poster sessions, where students from local research institutes and universities showcased work accepted at major NLP conferences, and they engaged in lively discussions with registrants and the keynote speakers. The talks of the day wound up with a lively panel titled “Ethics in AI” with panel discussants from Singapore’s tech companies, including Liling Tan from Rakuten Institute of Technology, and Guillermo Infante, the CTO of TAIGAR, as well as many of our keynote speakers of the day, such as Dr. Mihalcea, Dr. Hovy, and also Dr. Shafiq Joty from Nanyang Technological University (NTU). The panelists discussed the limitations of ethical frameworks and the future prospects of ethics in AI. The day ended with a banquet dinner hosted by SG-Innovate, which was attended by about 50 participants, including the keynote speakers, the hosting PIs across various institutes around Singapore, and members of their research labs.

Day 2 of the workshop was conducted at the various hosting institutes, where the program involved further talks by the keynote speakers and collaborative meetings and discussions with the PIs and their research labs.

- Dr. Preslav Nakov visited both NTU and SUTD and expanded on his work on detecting fake news by the source in the context of media literacy and regulatory compliance.
- Dr. William Wang was hosted by the Singapore Management University and presented on his work on automatic fact verification with semi-structured knowledge.
- Dr. Heng Ji visited NUS and presented on her work in the automatic construction of graphs from scientific knowledge.