

PrivateNLP2020

**The Second Workshop on Privacy
in Natural Language Processing**

Nov 20, 2020

Online

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Introduction

The PrivateNLP workshop aims to bring together practitioners and researchers from academia and industry to discuss the challenges and approaches to designing, building, verifying, and testing privacy preserving systems in the context of Natural Language Processing.

The workshop received 11 paper submissions this year and accepted 5 papers and one non-archival paper. These accepted papers cover membership inference attacks, text perturbation mechanisms, privacy mechanisms for language understanding tasks, automatic third-party identification in privacy policies, semantic similarity within privacy policies, and performance boosting of differentially private language models.

There are 5 invited speakers, Aaron Roth (University of Pennsylvania), Reza Shokri (National University of Singapore), Krishnaram Kenthapadi (Amazon AWS), Annabelle McIver (Macquarie University), and Mark Dras (Macquarie University). Each talk will cover different aspects of privacy-preserving NLP. We would like to thank the 33 Program Committee members who kindly reviewed the submissions, as well as the invited speakers, and the workshop co-organizers, Oluwaseyi Feyisetan (Amazon, USA), Sepideh Ghanavati (University of Maine, USA), Shervin Malmasi (Amazon, USA), and Patricia Thaine (University of Toronto, Canada).

Organizers:

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Sepideh Ghanavati, University of Maine (USA)
Shervin Malmasi, Amazon (USA)
Patricia Thaine, University of Toronto (Canada)

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Shomir Wilson, Pennsylvania State University, (USA)
Tom Diethe, Amazon, (UK)
Travis Breaux, Carnegie Mellon University, (USA)
Xavier Ferrer, King's College London, (UK)

Invited Speaker:

Aaron Roth, University of Pennsylvania, (USA)
Reza Shokri, National University of Singapore, (Singapore)
Krishnaram Kenthapadi, Amazon AWS, (USA)
Annabelle McIver, Macquarie University, (Australia)
Mark Dras, Macquarie University, (Australia)

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Conference Program

8:45–9:00 *Welcome*
Seyi Feyisetan

9:00–10:15 **Session 1**

9:00–9:45 *Invited Talk - Aaron Roth*

9:45–10:15 *On Log-Loss Scores and (No) Privacy*
Abhinav Aggarwal, Zekun Xu, Oluwaseyi Feyisetan and Nathanael Teissier

10:30–12:15 **Session 2**

10:30–11:15 *Invited Talk 2 - Reza Shokri*

11:15–11:45 *A Differentially Private Text Perturbation Method Using Regularized Mahalanobis Metric*
Zekun Xu, Abhinav Aggarwal, Oluwaseyi Feyisetan and Nathanael Teissier

11:45–12:15 *TextHide: Tackling Data Privacy in Language Understanding Tasks*
Yangsibo Huang, Zhao Song, Danqi Chen, Kai Li and Sanjeev Arora

13:00–14:45 **Session 3**

13:00–13:45 *Invited Talk 3 - Mark Dras and Annabelle McIver*

13:45–14:15 *Identifying and Classifying Third-party Entities in Natural Language Privacy Policies*
Mitra Bokaie Hosseini, Pragyan K C, Irwin Reyes and Serge Egelman

14:15–14:45 *Surfacing Privacy Settings Using Semantic Matching*
Rishabh Khandelwal, Asmit Nayak, Yao Yao and Kassem Fawaz

No Day Set (continued)

15:00–17:00 **Session 4**

15:00–15:45 *Invited Talk 4 - Krishnaram Kenthapadi*

15:45–16:15 *Differentially Private Language Models Benefit from Public Pre-training*
Gavin Kerrigan, Dylan Slack and Jens Tuyls

16:15–16:45 *Finding Paper*

16:45–17:00 *Closing Remarks*
Seyi Feyisetan