

P. AJIE UTAMA

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Google Scholar: [Prasetya Ajie Utama](#)

SUMMARY

- I am a doctoral researcher in Natural Language Processing at the UKP Lab of Technical University Darmstadt.
- My research focuses on improving robustness and generalization of neural models for language understanding.

EDUCATION

2018 – present **Technical University Darmstadt**, Germany: Ph.D. in Computer Science

Advisor: Iryna Gurevych – *expected graduation:* 2022

2016 – 2018 **Brown University**, USA: M.Sc. in Computer Science

Advisor: James Tompkin, Pedro Felzenszwalb – *GPA:* 3.85

2011 – 2015 **Universitas Indonesia**: B.Sc. in Computer Science

Advisor: Bayu Distiawan Trisedya – *GPA:* 3.54

EMPLOYMENT

UKP Lab, Technical University Darmstadt

Doctoral Researcher

AIPHES Project

Sept 2018 to present

- I study the behavior of neural networks models for natural language understanding (NLU) tasks such as textual entailment recognition. The goal of my research is to improve the robustness and generalization of NLU models particularly against adversarial and out-of-domain test cases.
- I proposed several learning strategies that mitigate performance drops upon evaluation on the adversarial settings. In addition, I also studied the extrinsic performance of the NLU models on their downstream applications.
- Supervisors: Nafise Sadat Moosavi, Iryna Gurevych

Data Management Group

Research Assistant

DBPal Project

Summer 2017 & 2018

- I conducted research on developing end-to-end framework for natural language interface to relational databases. We proposed a synthetic data generation strategies to bootstrap the training of sequence-to-sequence models that map natural language utterances to SQL statements.
- My contributions ranged from the collecting the data, training the models, developing the user-study web application, and writing the papers which are published as a long and demo paper at SIGMOD.
- Supervisors: Carsten Binnig, Ugur Cetintemel

Dattabot

Software Engineer

HARA Project

2015 – 2016

- I worked on a range of projects for a budding startup that aims to build a data integration platform in the agricultural domain. My contributions include implementing spatial segmentation algorithms, developing RESTful web services, and designing various distributed text processing algorithms on Hadoop MapReduce and Spark.

Universitas Indonesia

Teaching Assistant

Computer Science Department

2013 – 2014

- I held office hours to assist students and helped the class logistics for several courses including Advanced Database and Foundations of Programming.

PEER-REVIEWED PUBLICATIONS

P. Ajie Utama, Nafise Sadat Moosavi, Iryna Gurevych. 2020. [Towards Debiasing NLU Models from Unknown Biases](#). In Proceedings of The 2020 Conference on Empirical Methods in Natural Language Processing.

P. Ajie Utama, Nafise Sadat Moosavi, Iryna Gurevych. 2020. [Mind the Trade-off: Debiasing NLU Models without Degrading In-Distribution Performance](#). In Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics.

Tobias Falke, Leonardo Ribeiro, **P. Ajie Utama**, Ido Dagan, Iryna Gurevych. 2019. [Ranking Generated Summaries by Correctness: An Interesting but Challenging Application for Natural Language Inference](#). In Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics.

Nathaniel Weir*, **P. Ajie Utama***, Alex Galakatos, Andrew Crotty, Ugur Cetintemel, Carsten Binnig. 2020. [DBPal: A Fully Pluggable NL2SQL Training Pipeline](#). In Proceedings of the 2020 ACM SIGMOD International Conference on Management of Data.

P. Ajie Utama*, Nathaniel Weir*, Ugur Cetintemel, Carsten Binnig. 2018. [DBPal: A learned NL-interface for databases](#). Demo Paper in Proceedings of the 2018 International Conference on Management of Data.

P. Ajie Utama, Bayu Distiawan Trisedya. 2015. [Spark-gram: Mining frequent N-grams using parallel processing in Spark](#). In Proceedings of the 2015 International Conference on Advanced Computer Science and Information Systems (ICACSIS).

NON-PEER-REVIEWED PUBLICATIONS

Nafise Sadat Moosavi, **P. Ajie Utama**, Andreas Rücklé, Iryna Gurevych. 2019. [Improving Generalization by Incorporating Coverage in Natural Language Inference](#). arXiv preprint.

P. Ajie Utama, James Tompkin. 2018. [Evaluating Attribute-Object Compositionality in Text-Image Multimodal Embeddings](#). Final Projects. Brown University.

SKILLS

Programming Python, Java, Matlab, R, Javascript, HTML

Framework Pytorch, Matplotlib, Tensorflow, Numpy

Languages English (professional proficiency), Bahasa Indonesia (native), German (conversational)

AWARDS

German Research Foundation 2018–2021. Fully funded PhD position as part of the AIPHES Research Training Group program offered by German government's DFG.

LPDP Scholarship 2016–2018. An Indonesian government's scholarship that provides the full tuition support and the living costs through the entirety of the graduate degree program.

PPA Fund Scholarship 2013–2014. Monthly stipend awarded by the university to the undergraduate students with distinguished academic achievements.

COURSEWORK

- **Graduate:** Design & Analysis of Algorithms, Machine Learning, Deep Learning (Special Topics in Computational Linguistics), Computational Linguistics (audit), Computer Vision, Creative AI for Computer Graphics, Computer Vision for Graphics & Interaction.
- **Undergraduate:** Discrete Mathematics I&II, Calculus I&II, Foundation of Programming, Data Structures & Algorithms, Operating Systems, Artificial Intelligence, Scientific Computing, Statistics & Probability, Image Processing, Data Mining.

OTHER

- Conference Reviewer: ACL 2020, EMNLP 2020
- Professional Memberships: Association for Computational Linguistics (ACL)