

# Hitomi YANAKA

hitomi.yanaka@riken.jp <http://hitomiyanka.strikingly.com/>

## RESEARCH INTERESTS

Natural Language Processing (Recognizing Textual Entailment, Semantic Textual Similarity),  
Computational Linguistics, Semantics, Machine Learning

## EDUCATION

<b>The University of Tokyo</b> , Tokyo, Japan Ph.D, Department of Systems Innovation, School of Engineering Research Theme: Learning Semantic Textual Relatedness using Natural Deduction Proof Supervisor: Seiichi Koshizuka and Daisuke Bekki	09/2018 10/2015-
<b>The University of Tokyo</b> , Tokyo, Japan MS, Department of Chemical System Engineering, School of Engineering Research Theme: Method for Evaluation and Analysis of the Quality of Cancer Care Supervisor: Satoko Tsuru and Yoshinori Iizuka	03/2013 04/2011-
<b>Waseda University</b> , Tokyo, Japan BS, Department of Applied Chemistry, School of Advanced Science and Engineering	03/2011 04/2007-

## MAIN PUBLICATION

### Journal Papers

1. Hitomi Yanaka, Koji Mineshima, Pascual Martinez-Gomez, and Daisuke Bekki, *Learning Semantic Textual Relatedness using Natural Deduction Proofs*, Journal of Natural Language Processing, Vol.25, No.3, pp.295-324, 2018.

### Refereed Conference Papers

1. Hitomi Yanaka, Koji Mineshima, Daisuke Bekki, Kentaro Inui, Satoshi Sekine, Lasha Abzianidze and Johan Bos, *Can neural networks understand monotonicity reasoning?*, Analyzing and interpreting neural networks for NLP (BlackboxNLP'19) with ACL'19, pp.31-40, 2019.
2. Hitomi Yanaka, Koji Mineshima, Daisuke Bekki, Kentaro Inui, Satoshi Sekine, Lasha Abzianidze and Johan Bos, *HELP: A Dataset for Identifying Shortcomings of Neural Models in Monotonicity Reasoning*, the 8th Joint Conference on Lexical and Computational Semantics (\*SEM'19) with NAACL-HLT'19, pp.250-255, 2019.
3. Hitomi Yanaka, Koji Mineshima, Pascual Martinez-Gomez, and Daisuke Bekki, *Acquisition of Phrase Correspondences using Natural Deduction Proofs*, 16th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT'18), pp.756-766, 2018. (Acceptance Rate: 29%)
4. Hitomi Yanaka, Koji Mineshima, Pascual Martinez-Gomez, and Daisuke Bekki, *Determining Semantic Textual Similarity using Natural Deduction Proofs*, The Conference on Empirical Methods in Natural

Language Processing (*EMNLP'17*), pp.681-691, 2017. (Acceptance Rate: 26%)

5. Hitomi Yanaka and Yukio Ohsawa, *Clustering Documents on Case Vectors Represented by Predicate-argument Structures -Applied for Eliciting Technological Problems from Patents-*, 11th International Symposium Advances in Artificial Intelligence and Applications (AAIA'16), pp.175-180, 2016. (Acceptance Rate: 37%)
6. Hitomi Yanaka and Yukio Ohsawa, *Clustering Documents Using Structural Similarity Based on Case Sets -Applied for Technological Problems from Patents-*, 2nd European Workshop on Chance Discovery and Data Synthesis in conjunction with the 20th European Conference on Artificial Intelligence (ECAI'16), pp.1-6, 2016. (Acceptance Rate: 39%)

## AWARDS and FUNDINGS

<b>JST AIP-PRISM Research Funding</b> "Linguistically-oriented dataset creation for Recognizing Textual Entailment"	03/2019 08/2018-
<b>Best Paper Award</b> "Towards Understanding Bilingual Textual Entailment and Similarity" The ESSLLI 2018 Workshop on NLP in the Era of Big Data, Deep Learning, and Post Truth, Sofia, Bulgaria	08/2018
<b>JST AIP Network Lab Award</b> "Learning semantic relations using natural deduction proof"	04/2018
<b>Young Researcher Award</b> The 24th annual meeting of the Association for Natural Language Processing	03/2018
<b>JST AIP Challenge Research Funding</b> "Learning semantic relations using natural deduction proof"	03/2018 08/2017-
<b>JASSO Scholarship Exemption from Refund</b> "Establishing a quality measurement system for cancer care process"	03/2013 04/2011-

## WORK EXPERIENCE

<b>RIKEN Center for Advanced Intelligence Project (AIP)</b> , Tokyo, Japan Postdoctoral Researcher at Natural language understanding team	Present- 10/2018
<b>Ochanomizu University</b> , Tokyo, Japan Part-time lecturer at Center for Interdisciplinary AI and Data Science	Present- 11/2018
<b>University of Groningen</b> , Groningen, Netherlands Guest researcher at Center for Language and Cognition	12/2018 11/2018-
<b>Ochanomizu University</b> , Tokyo, Japan Research Assistant at Center for Simulation Sciences	09/2018 06/2017-
<b>The University of Tokyo</b> , Tokyo, Japan Research Assistant at Department of Systems Innovation, School of Engineering	09/2018 01/2016-

<b>Nomura Research Institute</b> , Tokyo, Japan Application Engineer at Department of Patent Information Service	12/2015 04/2013-
<b>The Overseas Human Resources and Industry Development Association (HIDA)</b> , Teaching Assistant for the Quality Management Course	03/2012
<b>Mitsubishi Research Institute</b> , Consulting Intern	09/2011
<b>Goldman Sachs</b> , Investment Banking Intern	08/2011
<b>The University of Tokyo</b> , Tokyo, Japan Teaching Assistant at Department of Chemical System Engineering, School of Engineering	03/2013 04/2011-

## SKILLS and COURSEWORK

Certifications	Information Security Specialist (IPA): Security Experts' exam Applied Information Technology Engineer (IPA): Software Engineers' exam Fundamental Information Technology Engineer (IPA): Software Engineers' exam
Languages and Scripts	Expert: Python (Django), Perl (Mojolicious) Proficient: Shell Script, HTML, CSS, JavaScript (D3.js) Familiar: Java, XML, JSON
Software Tools	Microsoft Office, Latex, Git, Redmine, Slack, SQL, ASP.NET
Foreign Language	English (TOEIC Score 875), Japanese (native level)
Coursework	Ph.D: Natural Language Processing, Computational Semantics, Machine Learning MS: Quality Management, Chemical Engineering, Biotechnology

## SOCIAL WORK EXPERIENCE

Member of Japan Women Engineers Forum (JWEF)	01/2016-03/2018
Public Relations Student Assistant at Ttime, School of Engineering, University of Tokyo	03/2013-04/2011

## PERSONAL PROFILE

Playing the Jazz Piano:

<https://www.youtube.com/channel/UCSRBPI09-MYDq0sxK1qihrA>

Writing Essays:

<https://www.nikkan.co.jp/articles/view/00383265>