

Weiwei YANG

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CURRENT POSITION

Zhejiang Lab Hangzhou, Zhejiang, China
Research Specialist, Research Center for High-Efficiency Computing Systems 07/2023—Present

- Leading the Algorithm & Framework Team to build high-efficiency distributed deep learning framework for training and serving LLMs.

EDUCATION

University of Maryland College Park, MD, USA
M.Sc. in Computer Science 08/2014—05/2017
Ph.D. in Computer Science 08/2014—08/2019
Co-Advisors: Prof. Philip Resnik and Prof. Jordan Boyd-Graber
Dissertation: Connecting Documents, Words, and Languages using Topic Models
Advanced to Candidacy on May 3, 2018
Dissertation Defended on May 9, 2019

Tsinghua University Beijing, China
B.Eng. in Computer Science & Technology 08/2009—07/2013
Honor: Excellent Bachelor's Thesis Award

RESEARCH EXPERIENCE

University of Maryland College Park, MD, USA
Graduate Research Assistant, CLIP Lab 01/2015—05/2019

- Co-Advisors: Philip Resnik and Jordan Boyd-Graber
- Topic models, Bayesian methods, and computational linguistics in computational social science

Tsinghua University Beijing, China
Undergraduate Research Assistant, IAR Team 02/2013—03/2014

- Advisor: Hua Xu
- Micro-blog user clustering using latent Dirichlet allocation.
- Hierarchical emotion classification and emotion component analysis on Chinese micro-blog posts.

Undergraduate Research Assistant, Information Retrieval Team 10/2011—12/2011

- Advisor: Shaoping Ma
- Impact analysis of Sina Weibo users using PageRank.

Stanford University Stanford, CA, USA
Undergraduate Visiting Researcher, Artificial Intelligence Lab 06/2012—08/2012

- Advisor: Andrew Ng
- Matlab library of basic matrix operations implemented in CUDA.
- Time-series modeling using deep learning.

WORK EXPERIENCE

Meta Platforms Inc.

Menlo Park, CA, USA

Senior Research Scientist, Messaging Product Machine Learning

06/2019—06/2023

- Improve user engagement on Messenger and Instagram, example projects:
 - List-wise ranking with LambdaRank
 - Improve model ranking performance with recurring training
 - Use TTSN to improve ranking performance and save resource cost

Google Inc.

Mountain View, CA, USA

Software Engineering Intern, YouTube Engineering Team

05/2018—08/2018

- Mentor: Yundi Qian
- YouTube video comments ranking using deep learning.

Comcast Labs

Washington, DC, USA

Research Intern, NLP Team

05/2017—08/2017

- Mentor: Ferhan Ture
- Representation learning of closed captions.

FiscalNote Inc.

Washington, DC, USA

Data Science Intern, Data Science Team

06/2016—08/2016

- Mentor: Vladimir Eidelman
- Authorization and citation link prediction between US statutes and regulations.
- Sentiment analysis and support/oppose classification on US regulation comments.

PUBLICATIONS

Weiwei Yang, Jordan Boyd-Graber, and Philip Resnik. **A Multilingual Topic Model for Learning Weighted Topic Links Across Corpora with Low Comparability**. Empirical Methods in Natural Language Processing and International Joint Conference on Natural Language Processing (EMNLP-IJCNLP), 2019, Hong Kong SAR, China.

Weiwei Yang, Jordan Boyd-Graber, and Philip Resnik. **Adapting Topic Models using Lexical Associations with Tree Priors**. Empirical Methods in Natural Language Processing (EMNLP), 2017, Copenhagen, Denmark.

Lingzi Hong, **Weiwei Yang**, Philip Resnik, and Vanessa Frias-Martinez. **Uncovering Topic Dynamics of Social Media and News: The Case of Ferguson**. International Conference on Social Informatics (SocInfo), 2016, Bellevue, WA, USA.

Weiwei Yang, Jordan Boyd-Graber, and Philip Resnik. **A Discriminative Topic Model using Document Network Structure**. Association for Computational Linguistics (ACL), 2016, Berlin, Germany.

Weiwei Yang, Jordan Boyd-Graber, and Philip Resnik. **Birds of a Feather Linked Together: A Discriminative Topic Model using Link-based Priors**. Empirical Methods in Natural Language Processing (EMNLP), 2015, Lisbon, Portugal.

PRESENTATIONS

[Talk] **A Multilingual Topic Model for Learning Weighted Topic Links Across Corpora with Low Comparability.** Empirical Methods in Natural Language Processing and International Joint Conference on Natural Language Processing (**EMNLP-IJCNLP**), Hong Kong SAR, China, November 5, 2019.

[Poster] **Adapting Topic Models using Lexical Associations with Tree Priors.** Empirical Methods in Natural Language Processing (**EMNLP**), Copenhagen, Denmark, September 10, 2017.

[Talk] **A Discriminative Topic Model using Document Network Structure.** Association for Computational Linguistics (**ACL**), Berlin, Germany, August 8, 2016.

[Poster] **Birds of a Feather in the Same Nest: A Discriminative Topic Model using Block-based Priors.** Mid-Atlantic Student Colloquium on Speech, Language, and Learning (**MASC-SLL**), Philadelphia, PA, USA, April 1, 2016.

[Poster] **Birds of a Feather Linked Together: A Discriminative Topic Model using Link-based Priors.** Empirical Methods in Natural Language Processing (**EMNLP**), Lisbon, Portugal, September 19, 2015.

TEACHING EXPERIENCE

Department of Computer Science, University of Maryland <i>Graduate Teaching Assistant</i> (Instructor: Evan Golub) CMSC131 Object-Oriented Programming	College Park, MD, USA Fall 2014
Department of Computer Science & Technology, Tsinghua University <i>Undergraduate Teaching Assistant</i> (Instructor: Junhui Deng) 30240184 Data Structures and Algorithms	Beijing, China Spring 2011

HONORS AND AWARDS

Second Prize, Ghost Hunter Competition, Tsinghua University	05/2020
Dean's Fellowship, University of Maryland, College Park	09/2014
Excellent Bachelor's Thesis Award, Tsinghua University	06/2013
Scholarship for Progress in Study, Tsinghua University	09/2011
Memorial Award, Sohu Cup Artificial Intelligence Program Competition	05/2011
Group Champion, Ma Yuehan Cup Chess Competition, Tsinghua University	04/2010

SERVICES

Reviewer/External Reviewer	
• Association for Computational Linguistics (ACL)	2018, 2019, 2020, 2021
• Empirical Methods in Natural Language Processing (EMNLP)	2015, 2018, 2020
• AAAI Conference on Artificial Intelligence (AAAI)	2020
• Conference on Computational Natural Language Learning (CoNLL)	2018, 2019
• North American Chapter of the Association for Computational Linguistics (NAACL)	2019
• International Conference on Computational Linguistics (COLING)	2018
• Mid-Atlantic Student Colloquium on Speech, Language, and Learning (MASC-SLL)	2018
• European Chapter of the Association for Computational Linguistics (EACL)	2017
Student Volunteer	
• Association for Computational Linguistics (ACL)	2016
• Admission Office of Tsinghua University, Zhejiang Branch	2013