# Zheng Xin Yong

# Curriculum Vitae

Department of Computer Science Brown University zheng\_xin\_yong@brown.edu https://yongzx.github.io/

# Education

2021 Ph.D. in Computer Science

- CURRENT Brown University, *Providence*, *RI*.

Advisor: Prof. Stephen Bach

2017 B.Sc. in Computational Sciences & Business

2021 Minerva University, San Francisco, CA.

Thesis: Representation Learning for Frame-Semantic Resources

### Publications

2022 Frame Shift Prediction

Z. X. Yong, P. D. Watson, T. T. Torrent, O. Czulo, and C. F. Baker. Conference on Language Resources and Evaluation (LREC), To Appear

### Adapting BigScience Multilingual Model to Unseen Languages

Z. X. Yong\* and V. Nikoulina\*.

ACL Workshop on Challenges and Perspectives in Creating Large Language Models

### PromptSource: An Integrated Development Environment and Repository for Natural Language **Prompts**

S. H. Bach\*, V. Sanh\*, Z. X. Yong, A. Webson, C. Raffel, N. V. Nayak, A. Sharma, T. Kim, M. S. Bari, T. Fevry, Z. Alyafeai, M. Dey, A. Santilli, Z. Sun, S. Ben-David, C. Xu, G. Chhablani, H. Wang, J. A. Fries, M. S. Al-shaibani, S. Sharma, U. Thakker, K. Almubarak, X. Tang, T. J. Jiang, and A. M. Rush. Association for Computational Linguistics (ACL), Demo Track.

#### Multitask Prompted Training Enables Zero-Shot Task Generalization

V. Sanh\*, A. Webson\*, C. Raffel\*, S. H. Bach\*, L. Sutawika, Z. Alyafeai, A. Chaffin, A. Stiegler, T. L. Scao, A. Raja, M. Dey, M. S. Bari, C. Xu, U. Thakker, S. Sharma, E. Szczechla, T. Kim, G. Chhablani, N. V. Nayak, D. Datta, J. Chang, T. J. Jiang, H. Wang, M. Manica, S. Shen, Z. X. Yong, H. Pandey, R. Bawden, T. Wang, T. Neeraj, J. Rozen, A. Sharma, A. Santilli, T. Fevry, J. A. Fries, R. Teehan, S. Biderman, L. Gao, T. Bers, T. Wolf, and A. M. Rush.

International Conference on Learning Representations (ICLR). Selected for spotlight presentation.

# 2020 Semi-supervised Deep Embedded Clustering with Anomaly Detection for Semantic Frame Induc-

**Z. X. Yong** and T. T. Torrent.

Conference on Language Resources and Evaluation (LREC).

# Research Internship Experience

Jun, 2020 FrameNet Brasil | Federal University of Juiz de Fora

- Nov, 2020 Project: Analyzing and predicting cross-lingual semantic frame shifts using graph neural networks... Mentors: Collin F. Baker, Tiago T. Torrent, Oliver Czulo, Ely Matos

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m Sep},\,2019$  Minerva-Masason Foundation Artificial Intelligence Lab

Aug, 2020 Project: Image recoloring for graphic designs.

Mentor: Patrick Watson

 $\mathrm{Jun},\ 2019$  Red Hen Lab

- Dec, 2019 Project: Semi-supervised representation learning for expanding FrameNet.

Mentor: Tiago T. Torrent

Jun, 2018 The Interface Financial Group

-  $m May,\ 2019$  Project: Information extraction for unstructured financial documents...

Mentor: Ross Biro

JAN, 2018 Pilot, Inc

- Apr., 2018 Project: Rule-based and statistical-based named-entity recognition for financial memos..

Mentor: Louise Vigeant

# Industrial Internship Experience

Feb, 2021 Glint Solar

- MAY,2021 Machine Learning Engineer Intern, Oslo, Norway.

Create classification models for identifying natural lakes and human-made reservoirs from satellite images.

APR, 2020 Mozilla Corporation

- Jun, 2020 Fix-The-Internet Builder, California, USA.

Created a full-stack mobile-friendly platform to provide Al-driven feedback (such as attention and popularity prediction) to graphic designers.

DEC, 2018 Recruit Co., Ltd.

- APR, 2019 Machine Learning Engineer Intern, Tokyo, Japan.

Developed an end-to-end machine learning pipeline using Luigi and researched NLP models for automated essay scoring in Japanese.

DEC, 2017 The Last Mile

- APR, 2018 Lead Platform Developer, California, USA.

Led ten students to design JavaScript learning curriculum and built a coding platform for prisoners in San Quentin State Prison.

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m Sep},\ 2017$  Minerva Schools at Keck Graduate Institute

APR, 2018 Product Team Intern, California, USA.

Designed fuzzy string searching algorithm to compare and search school addresses on Google to make de-duplicating SQL database 40% faster.

# Research Mentoring

# 2022 Imam Hasan Araf

Undergraduate Student, Rowan University.

Project: Named entity recognition for unseen entity labels.

Program: ExploreCSR - Socially-Responsible AI for Computational Creativity

2019 Shutaro Aoyama

2021 Undergraduate Student, University of Tokyo.

Project: Generative NLP models for note-taking app (edtech).

Program: Minerva-Masason Foundation Mentorship

2019 Yuri Morizane

- 2021 Undergraduate Student, Osaka University.

Project: Bayesian model for medical image construction.

Program: Minerva-Masason Foundation Mentorship

# **Professional Services**

#### Reviewer.

ACL Rolling Review: 2022 - Present

ACL: 2021 EMNLP: 2021

Language Resources and Evaluation Journal: 2021

The Workshop on Weakly Supervised Learning at ICLR: 2021

# Competences

Programming Python, Java, JavaScript, C/C++, R, MySQL, Unix Shell

Libraries and PyTorch, TensorFlow, Keras, NLTK, Amazon Web Service, Google Cloud Platform, Docker, Singularity,

Services Heroku, LATEX, Git