# Yichao(Joey) Zhou

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## Research Interests

- Low resource information extraction and text mining

    - Information extraction with auxiliary supervision and word knowledge
    - Clinical case report annotation, indexing, and curation (CREATe Demo)
    - Zero-shot semi-structured information extraction from web documents

- Robustness in NLP

    - Adversarial attack detection and recovery

- Representation Learning in NLP

    - Gender neutral embedding learning
    - Pronunciation-enhanced embedding for humor detection

- Knowledge acquirement for Ads targeting and creative design

    - Conversion prediction and user funnel stage recognition
    - Cross-modal text generation and ranking approaches for Ad creative refinement

## Education

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| **University of California, Los Angeles** | Los Angeles, CA, US |
| Ph.D candidate in Computer Science (Information & Data Management) | *2016 – Now* |
| **University of California, Los Angeles** | Los Angeles, CA, US |
| MS degree in Electrical Engineering (Signals & Systems) GPA:3.8/4.0 | *2015 – 2017* |
| **Southeast University** | Nanjing, Jiangsu, P.R.China |
| BS degree in Electronics Engineering GPA:3.8/4.0 | *2011 – 2015* |

## Experiences

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| **Google Research** | Mountain View, CA, US |
| Research Intern | *2020 Summer* |
| **YAHOO! Research** | Sunnyvale, CA, US |
| Research Intern | *2018, 2019 Summer* |
| **HELLA Co.** | Lippstadt, NRW, Germany |
| Optical Design Intern for Undergraduate Thesis | *2014 Winter and Spring* |

## Skills

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| **Programming Languages:** Python, C++ | **Deep Learning Platform:** TensorFlow, PyTorch |

## Selected Publications and Patents

*Publications*

- **Yichao Zhou**, Ying Sheng, Nguyen Vo, Nick Edmonds, Sandeep Tata, Simplified DOM Trees for Transferable Attribute Extraction from Web Documents, *The Web Conference*, **Submitted to** *KDD2021*.

- **Yichao Zhou**, Yu Yan, J. Harry Caufield, Kai-Wei Chang, Yizhou Sun, PeiPei Ping, Wei Wang, Clinical Temporal Relation Extraction with Probabilistic Soft Logic Regularization and Global Inference, *The 35th AAAI Conference on Artificial Intelligence*, **AAAI2021**.

- **Yichao Zhou**, Wei-Ting Chen, Bowen Zhang, David Lee, J. Harry Caufield, Kai-Wei Chang, Yizhou Sun, PeiPei Ping, Wei Wang, CREATe: Clinical Report Extraction and Annotation Technology, *IEEE 37th International Conference on Data Engineering*, (Demo), **ICDE2021**.

- Rujun Han, **Yichao Zhou**, Nanyun Peng, Domain Knowledge Empowered Structured Neural Net for End-to-End Event Temporal Relation Extraction, *The 2020 Conference on Empirical Methods in Natural Language Processing*, **EMNLP2020**.

- **Yichao Zhou**, Jyun-yu Jiang, Jieyu Zhao, Kai-Wei Chang, Wei Wang, "The Boating Store Had Its Best Sail Ever': Pronunciation-attentive Contextualized Pun Recognition", *2020 Annual Conference of the Association for Computational Linguistics*, ***ACL2020***.

- **Yichao Zhou**, Shaunak Mishra, Manisha Verma, Narayan Bhamidipati, Wei Wang, "Recommending Themes for Ad Creative Design via Visual-Linguistic Representations", *The Web Conference*, ***WWW2020***.

- Cheng Zheng, Jyun-Yu Jiang, **Yichao Zhou**, Sean D. Young, Wei Wang, "Social Media User Geolocation via Hybrid Attention", *The 43rd International ACM SIGIR Conference on Research and Development in Information Retrieval*, ***SIGIR2020***.

- J. Harry Caufield, **Yichao Zhou**, Yunsheng Bai, David Liem, Garlid, A., Kai-Wei Chang, Yizhou Sun, Wei Wang, Peipei Ping, "Resources for comprehensive information extraction and data integration in biomedicine", *28th Conference on Intelligent Systems for Molecular Biology*, (Poster), ***ISMB2020***.

- **Yichao Zhou**, Shaunak Mishra, Jelena Gligorijevic, T. Bhatia, Narayan Bhamidipati, "Understanding Consumer Journey using Attention based Recurrent Neural Networks", *SIGKDD Conference on Knowledge Discovery and Data Mining*, ***KDD2019***.

- **Yichao Zhou**\*, Jyun-yu Jiang\*, Kai-Wei Chang, Wei Wang, "Learning to Discriminate Perturbations for Blocking Adversarial Attacks in Text Classification", *2019 Conference on Empirical Methods in Natural Language Processing and 9th International Joint Conference on Natural Language Processing*, ***EMNLP-IJCNLP2019***. (\* equal contribution)

- **Yichao Zhou**, J. Harry Caufield, Yizhou Sun, Peipei Ping, David Liem, D. Sigdel, Kai-Wei Chang, Wei Wang, "Learning Structured Knowledge from Clinical Case Reports", *27th Conference on Intelligent Systems for Molecular Biology and 18th European Conference on Computational Biology*, (Poster), ***ISMB/ECCB2019***.

- Jieyu Zhao, **Yichao Zhou**, Zeyu Li, Wei Wang, Kai-Wei Chang, "Learning Gender-Neutral Word Embedding", *Conference on Empirical Methods in Natural Language Processing*, ***EMNLP2018***.

- Tan Patrick, **Yichao Zhou**, Xinxin Huang, Wei Wang, "AZTEC: A Cloud-based Computational Platform to Integrate Biomedical Resources", *IEEE 33rd International Conference on Data Engineering*, (Demo), ***ICDE17***.

*Patents*

- S. Mishra, R.H Tang, **Yichao Zhou**, V.R.Raithatha, L.N. Buamidipati, M. Abasi, S. Ravindran, "Stage-based content item selection and transmission", 2020

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## Professional Activities

*Program Chair/Committee/Reviewer:*

- Chair:  NAACL 2021 Publication Chair

- PC member:  NAACL 2021, AAAI 2021, KDD 2020, AACL 2020

- Journal Reviewer:  Transactions on Knowledge and Data Engineering 2019

- Conference Sub-Reviewer:  KDD 2017, ICDM 2017 2019, HealthNLP 2018, EMNLP 2019

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## Teaching Assistant Experiences

- UCLA 2020 Winter & Spring, David Smallberg, Data structure and Algorithm (C++)

- UCLA 2019 & 2020 Fall, Dr.  Todd Millstein, Principles & Practices of Computing (Python)

- UCLA 2018 Fall, Dr.  Kai-Wei Chang, Machine Learning

- UCLA 2018 Winter, Dr.  Wei Wang, Data Mining

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## Honors, Awards, and Scholarships

- EMNLP 2019, SIGKDD 2019 Student Volunteer/Travel Award

- UCLA Graduate Division Fellowships, 2018 2019 2020

- Excellent Undergraduate Thesis (2.7%), Southeast University, 2015