# XI CHEN

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## **EDUCATION**

## University of Massachusetts Amherst

Amherst, MA

• PhD in Computer Science (major GPA: 3.9/4)

2019-present

## Central South University

Changsha, China

• B.E. in Computer Science (GPA 3.9/4)

2014-2018

#### **EXPERIENCE**

## University of Massachusetts Amherst

Amherst, MA

Research Assistant

2019.9 - present

- Refined a state-of-art transformer model to analyze global news graph with trillions of edges.
- Quantified country effects on news similarity with greedy factor selection, event clustering, and regression.
- Developed a large dataset of multilingual news article pairs with human-in-the-loop active learning framework.

Zhipu AI Beijing, China Research Intern 2018.3 - 2018.9

- Disambiguated scholars with heterogeneous random forest (deployed on prestigious AI platform Aminer).
- Predicted social links by probabilistic graph time series with psychological latent variable.

# Briup Technology corporation

Software Engineer Intern

Jiangsu, China

2017.6 - 2017.8

• Developed a server-client smart traffic system on sand table as to route optimization and obstacle avoidance.

#### **PROJECT**

# Large-scale Multilingual News Graph Learning

- Extract cross-lingual name entities with Spacy, Polyglot, and Wikipedia concepts.
- Recall, pre-rank, and rank similar news article pairs based on rules and active learning classifiers.
- Predict global news network for trillions of pairs with refined multilingual transformer and bi-directional index.
- Built regression models to quantify country factors with greedy feature selection and event clustering.

### Personalized Opinion Graph Time Series Learning

- Modeled the dynamics of opinions and personalities with probabilistic graph time series.
- Devised an extended EM algorithm for learning the graph time series and get competitive performance.

### Symbolic Math Expression Learning

• Built a sequence-to-sequence model to compute partial differential of formula.

## SELECTED PUBLICATION

### International News Synchronization during Covid-19 Pandemic

Xi Chen, Scott Hale, David Jurgens, Mattia Samory, Przemyslaw Grabowicz. International World Wide Web Conference (The WebConf), 2023.

### A Multilingual News Similarity Dataset for Media Network and Bias Research

Xi Chen, Scott Hale, David Jurgens, Mattia Samory, Przemyslaw Grabowicz. International AAAI Conference on Web and Social Media (ICWSM), 2023.

## Multilingual Document-level Similarity

Xi Chen, Ali Zeynali, Chico Camargo, Fabian Flock, Devin Gaffney, Przemyslaw Grabowicz, Scott Hale, David Jurgens, Mattia Samory. International Workshop on Semantic Evaluation at NAACL (SEMEVAL), 2022.

Other 2 first author papers and 1 second author paper for network science and optimization

Published on peer-reviewed computer science academic journals.

## SKILL

PhD Courses: Machine Learning, Optimization, Natural Language Processing, Database, Algorithm

Programming Language and framework: Python, C/C++, R. Pytorch, Spark, Java, SQL, Linux, Matlab

#### HONOR

Orals at top-tier computer science conferences (Webconf 2023, NAACL 2022, TADA 2023, IC2S2 2022&2023).

Nomination for Chinese Exceptional Student (1/6500 ISchool undergrads and grads), 2018.

Ranked global Top50 of Autochess players (50/millions).