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

Jiangsu, China

Software Engineer Intern 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).