Guanghua Wang

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Highly motivated Computer Science Ph.D. candidate specializing in Natural Language Processing, focusing on Multi-doc summarization, long document summarization, and MultiModal summarization. Proficient in data mining, machine learning, and artificial intelligence. A track record of developing sophisticated algorithms and models to comprehend and analyze text data. I am eager to secure a role that allows me to apply my skills in enriching industrial endeavors and supporting project success.

Publication

- Segmented Summarization and Refinement: A Pipeline for Long-Document Analysis on Social Media
  Guanghua Wang, Priyanshi Garg, Weili Wu
  Journal of Social Computing, Revision process

- Dynamic Spectral Clustering and Rewriting Models: A Novel Pipeline Approach for Efficient Multi-Document Summarization
  Guanghua Wang, Dingzhu Du, Weili Wu
  IEEE/ACM Transactions on Audio, Speech, and Language Processing, Submitted

- Surveying the Landscape of Text Summarization with Deep Learning: A Comprehensive Review
  Guanghua Wang, Weili Wu
  Discrete Mathematics, Algorithms and Applications (DMAA)

- Auditing Medical Assessments: Risk Assessment with Machine Learning in Medical Diagnostics
  Hongmin W. Du, Guanghua Wang, Jiahui Norah Xu, Miklos A. Vasarhelyi
  Journal of Information Systems (JIS), Submitted

Services

- Program Committee member of AAAI 2024
- Program Committee member of LREC-COLING 2024
- Program Committee member of COCOA 2023

Teaching Assistant

- Organization of Programming Languages, Programming Language Paradigms
- Advanced Algorithm Design and Analysis, Database Systems, Software Engineering, Automata Theory

PROFESSIONAL EXPERIENCE

THE UNIVERSITY OF TEXAS AT DALLAS   **Richardson, TX**
Ph.D. Candidate/ Teaching Assistant   *Aug. 2019-Current*

- Specialized in Natural Language Processing research under the mentorship of Dr. Weili Wu.
- Demonstrated expertise in the design and deployment of NLP models, focusing on multi-document and long-document summarization.
- Highly skilled in Python, leveraging libraries such as Huggingface, Scikit-Learn, and Pytorch for feature extraction and crafting statistical models using machine learning algorithms like SVM, Logistic Regression, and Neural Networks.
- Developed efficient data crawlers for the acquisition and preprocessing of data tailored for NLP applications.
- Conversant with contemporary NLP models and methodologies, such as Large Language Models (LLMs), Knowledge Editing, Zero-Shot/Few-Shot Learning, and strategic prompting techniques.
- Served as a teaching assistant for various academic courses, showcasing a blend of technical knowledge and educational proficiency.

Spruce Technology Limited (Meicai.cn) – a food distribution unicorn startup   **Beijing, China**

Data product manager   *Nov. 2015–Apr. 2018*

- Spearheaded the development of a robust data platform, overseeing the creation of numerous daily data reports.
- Led the successful development and implementation of a data app dedicated to monitoring business data in real time.
- Pioneered the design and implementation of a meta-data platform, defining key data indicators crucial for the distribution business.
- Devised a comprehensive profit-cost model, enabling precise calculation of operational indicators to drive informed decision-making.
- Took charge of developing product recommendation categories, significantly boosting sales performance.

Domob.cn Limited - Mobile Advertising Platform   **Beijing, China**
Data analyst   *Jan. 2014–Nov. 2015*

- Conducted in-depth data analysis for the Advertisement Network, resulting in the formulation of an effective pricing strategy.
- Analyzed data from the Advertisement Exchange and skillfully designed data report templates for the data platform.
- Developed and delivered highly optimized strategies for the advertising platform, aligning them with the company's overarching goals.
- Performed real-time bidding collection to evaluate the advertising performance of all APPs on the platform.
- Conducted thorough investigations of APPs with advertisements to identify potential opportunities for business expansion.

Changyou.com Limited – Game Company,   **Beijing, China**
Data analyst intern   *Jul. 2013–Sep. 2013*

- Gathered and diligently monitored data from games developed by CHANGYOU.COM LIMITED, presenting comprehensive reports.
- Conducted detailed data analysis on players' performance, providing valuable recommendations to the operation executive for optimizing gameplay and user experience.
- Skillfully analyzed market behavior data, delivering actionable insights and recommendations to the marketing specialist for effective promotional strategies.

Accenture   **Beijing, China**
IT consulting intern   *Apr. 2013–Jul. 2013*

- Accurately compiled and analyzed the meta-data for COFCO Group's products.

EDUCATION

THE UNIVERSITY OF TEXAS AT DALLAS   **Richardson, TX**
Ph.D. in Computer Science (concentration: Natural Language Processing),   *Aug. 2019-Current*
Honors: (GPA: 3.85/4.0)

PEKING UNIVERSITY   **Beijing, China**
Master in Software Engineering (concentration: Network)   *Sep. 2011-Jul. 2014*

NORTHEASTERN UNIVERSITY   **Shenyang, China**
Bachelor of Engineering (concentration: Information Security)   *Sep. 2006-Jun. 2010*

ADDITIONAL SKILLS

- Advanced proficiency in Python, Pytorch, MySQL, R, and EXCEL.
- Skilled in using Axure, Xmind, and Microsoft Visio for effective prototyping and visualization.
- Fluent in both English and Mandarin, enabling seamless communication in diverse settings.