DEMING SHENG

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EDUCATION

Bioinformatics and Artificial Intelligence Track, King Abdullah University of Science and Technology, Saudi Arabia 08.2023 - 08.2027 (Expected)

Major in Bioengineering. Fully Funded PhD Student (KAUST Fellowship).

Research topics: Machine Learning, Survival Analysis.

School of Computer and Artificial Intelligence, Wuhan University of Technology, China

Master of Engineering. Major in Software Engineering, GPA 92.03% (Rank:1/71).   09.2019 - 06.2022

Research topics: Educational Data Mining, Natural Language Processing, Recommendation System.

President of the College's Science and Technology Association.

School of Computer and Artificial Intelligence, Wuhan University of Technology, China

Bachelor of Engineering. Major in Software Engineering, GPA 84.34% (Rank:43/275). 09.2015 - 06.2019

WORKING EXPERIENCES

Industrial and Commercial Bank of China, China 07.2022 - 05.2023

Position: Financial Technology Assistant Manager.

I was mainly responsible for inclusive finance related business.

Awards: Excellent Cadre (4%, Study Secretary of new employees), Excellent New Employee and Best Apprentice Award of ICBC.

PROJECTS

Research on Student-Centered MOOC Teaching Resources Dynamic Adaptive Management (Hubei Province Science and Technology Support Project, **Main Participant, Grant No: 2015BAA072**) 04.2021 - 06.2022

This project aims to organize existing resource systems and design a student-centered dynamic adaptive management algorithm for MOOC resources, which suffices the dynamic and diverse demands of different individuals.

- We collected and collated data from multiple major MOOC platforms, and further analyzed student behaviour trajectories.

- We proposed an intelligent resource scheduling algorithm based on incremental updates to optimize and manage resources collaboratively.

- We designed a feedback mechanism for student satisfaction to optimize resource services.

Research on the Technical Route of Informatization Construction in Universities in the Next Five to Ten Years (Fundamental Research Funds for the Central Universities, **Main Participant, Grant No: 2020IVB069**) 06.2020 - 12.2021

This project conbrew update-resetducted a thorough investigation of the existing informatization construction foundation of Chinese universities and proposed a blueprint for the application of intelligent Internet of Things, 5G/IPV6, artificial intelligence, big data, and blockchain technology to improve the infrastructure.

- We used advanced technology to build a sustainable campus informatization foundation, and offer intelligent resource management and big data analysis services for teaching and scientific research.

- We employed a unified ID to break the existing multi-departmental information barriers to achieve information intercommunication and comprehensive integration.

- We utilized blockchain technology to build a complete information security system to ensure information security.

Internet Fake News Detection (Independent Innovation Research Fund Project supported by Wuhan University of Technology, **Leader, Grant No: 2020zy170**) 01.2020 - 03.2021
This project utilizes the multi-modal attention mechanism methods to predict whether each piece of news data needs to be true or fake and its probability of true or fake through the existing data in the other seven major fields.

- We designed four sub-models from the three aspects of news text content, social context, and news image content to fully mine news features from text features, comment semantics, image physical frequency domain, and image pixel domain.

- We attempted several fusion technologies and finally leveraged attention mechanism to integrate the four sub-models to obtain better prediction results.

PUBLICATIONS

D. Sheng, J. Yuan, Q. Xie and L. Li. ACMF: An Attention Collaborative Extended Matrix Factorization Based Model for MOOC Course Service via a Heterogeneous View.(Accepted at **FGCS 2022, JCR Q1, IF=7.307**)

D. Sheng, J. Yuan and X. Zhang. Grasping or Forgetting? MAKT: A Dynamic Model via Multi-head Self-Attention for Knowledge Tracing.(Accepted at **SEKE 2021, CORE B, Oral Presentation**)

D. Sheng, J. Yuan and X. Zhang. How MOOC Videos Affect Dropout? A Lightweight Pipeline Making Student Dropout Interpretable From Several Levels.(Accepted at **SEKE 2021, CORE B, Oral Presentation**)

D. Sheng and J. Yuan. An Efficient Long Chinese Text Sentiment Analysis Method Using BERT-Based Models with BiGRU.(Accepted at **CSCWD 2021, CORE B, Oral Presentation**)

D. Sheng, J. Yuan, Q. Xie and P. Luo. MOOCRec: An Attention Meta-path Based Model for Top-K Recommendation in MOOC.(Accepted at **KSEM 2020, CORE B, Oral Presentation**)

HONORS

National First Prize of The 11-th China National College Student Computer Design Competition	August 2018
National Second Prize of "Huawei Cup" The 17-th China National Post-Graduate Mathematical Contest in Modeling	December 2020
National Scholarship for Postgraduate	October 2021
National Encouragement Scholarship	November 2016
Outstanding Master's Degree Thesis of Wuhan University of Technology	May 2022
Top Ten Outstanding Graduates of Wuhan University of Technology	June 2022
Outstanding Master Graduate of Wuhan University of Technology	April 2022
Outstanding Undergraduate Graduate of Wuhan University of Technology	June 2019
The First Prize Scholarship x3	October 2019 & 2020 & 2021
Outstanding Cadres of Student Association x2	June 2020 & 2021

SOCIETY EXPERIENCE

Reviewer for: Neural Computing and Applications (JCR Q1, IF=5.606)	2023 & 2022
Web Development Intern of Wuhan Zhongke Yunhua Co., Ltd. China	07.2018-08.2018

Teaching Assistant of Discrete Mathematics Course   03.2020-06.2020 & 03.2021-06.2021

Volunteer of The 7-th CISM Military World Games   October 2019

TECHNOLOGICAL SKILL

Computer Language and Modelling Framework: Python, MatLab, LaTex, Java, C++ and Keras.

Language: Chinese (Native), English (IELTS: Overall 7.0, Reading 8.5).