WU Junchao

Tel: +86 150 1826 2322 | Email: mc25653@um.edu.mo
Age: 22 | Address: Guangdong Province, China
Academic Page: https://junchaoiu.github.io/
Github: junchaoIU | WeChat: chaochaoshuisi

PERSONAL RESUME

Research Interest

- Natural Language Processing, Machine Translation, Knowledge Graphs and Information Retrieval

Education Background

Sept. 2018 - present

Beijing Normal University, Zhuhai   **Information Management and Information System**
- **Major courses:** Mathematical Modeling and Data Mining(98); Data Analysis and Application(96); Java Enterprise Application Development(97); Python Programming and Machine Learning(93); Statistics(93)
- **GPA:** 87/100 (Top 10%)
- *Outstanding graduate* of Beijing Normal University, Zhuhai in 2022
- Awarded the *Outstanding Graduation Thesis* of Beijing Normal University, Zhuhai in 2022
- *Professional Scholarship* of Beijing Normal University, Zhuhai for 2018-2021 academic years
- *Academic Scholarship* of Beijing Normal University, Zhuhai for 2020-2021 academic years
- *Outstanding student cadre Honor* of Beijing Normal University, Zhuhai for 2018-2020 academic years

August. 2022 - present

University of Macau   **Master of Science in Data Science with Specialization in Computational Linguistics**
- **Major courses:** Applied Natural Language Processing (A); Introduction to Data Science Programming (A); Data Science and Data Visualization (A-); Evaluation and assessment of language use (A-)
- **GPA:** 3.85/4.0

Skill

- English Level: IELTS(6.5), CET-6(507)
- Programming Languages: C, Python, JAVA, JavaScript, SQL, Bash
- Development Frameworks: SpringBoot, React.js, Flask
- Deep Learning Tools: Scikit-learn, PyTorch, Keras, Fairseq, Transformers
- DB Tools: Neo4j, MySQL, Oracle DB
- Other Tools: WebLogic, Apache Ant, Jena, Git, Hanlp, Echart
- Soft Skills: Leadership, Event Management, Writing, Public Speaking, Time Management

Research Paper

- **Wu J.**, Jiang Y., Chen X., et al. " The Canton Canon" Digital Library Based on Knowledge Graph-Taking the Revolutionary Archives of Canton in the Republic of China as an Example[C]//2021 IEEE 10th International Conference on Educational and Information Technology (ICEIT). IEEE, 2021: 171-179. （Best Oral Presentation Award Paper）

- Guo L. **Wu J.**, Chen X., et al. Research and Application of Digitalization of Long March Red Cultural Resources Based on Knowledge Graph[J]. *Electronic Technology & Software Engineering,* 2022(04):196-201. (Chinese)

- Chen X., Zhang Y., **Wu J.**, et al. The Topic Evolution of Danmaku Text Based on BTM--Taking the Context of COVID-19 as an Example[C]//2022 IEEE 5th International Conference on Big Data and Artificial Intelligence (BDAI). IEEE, 2022: 176-183. (Best Oral Presentation Award Paper)

- Yang J., Chen X., **Wu J.**, et al. A New Word Discovery Model for Danmaku Text based on Fusion of Multiple Features[J]. *Application Research of Computer*, Preprint, 2022. (Chinese) (Accepted)

- Chen X., Zhang Y., **Wu J.**, et al. Construction and Analysis of Diachronic Danmaku Corpus – Taking Youth Subculture Danmaku as an Example[J]. *Information Research*, Preprint, 2022. (Chinese) (Accepted)

- Jiang Y., **Wu J.**, Chen X., et al. Research on the Knowledge Graph of Spatiotemporal Evolution for the Historical Documents of Modern Chinese Revolution[J]. *Digital Library Forum*, 2022. (Chinese) (Under Review)

Research Project

May. 2019- Mar. 2021

Construction of a Digital Library for the History of Modern China's Revolution Based on Knowledge Graph

Beijing Normal University, Zhuhai   **Role: Project Director**

Responsibility:
- Team leading; Task assignment; Equipment procurement; Papers writing; system maintenance and improvement, and the final project is successfully concluded (Project Management, Teamwork)
- Design of ontology database and knowledge storage structure; Design of knowledge extraction and crawler; Design of knowledge reasoning completion scheme (Ontology Research, Knowledge Engineering)
- Design and development of the Python operation library AutoProtégé for the ontology editing tool Protégé
- Responsible for the front-end development and back-end development of China Modern Revolution History Knowledge Graph System (CMRH-KG: https://gzknowledge.cn) (Technology Stack: React, SpringBoot, Jena)
- Design and application of the information double-layer retrieval model and the spatiotemporal knowledge model.

Outputs: Successful Acceptance of the Project; Information Retrieval System (CMRH-KG)*1; Python-based Third-party Library (AutoProtégé)*1; Academic Paper*2; Software Copyright*1

May. 2020- Mar. 2022	**Research and Application of Digitalization of Long March Red Cultural Resources Based on Knowledge Graph** **Beijing Normal University, Zhuhai** **Role: Backend Engineer** **Responsibility:** • App back-end technology selection, design and development (Technology Stack: Flask, Neo4j) • Participate in the design and construction of the underlying knowledge graph model; the cleaning, transformation and knowledge base storage of data (knowledge engineering) **Outputs:** Successful Acceptance of the Project; App Based on Knowledge Graph of Long March Red Culture*1; Academic Papers*2;
May. 2020- Present	**Research on Evolution Model of Youth Subculture Based on Danmaku Corpus** **Beijing Normal University, Zhuhai** **Role: Data Mining & Algorithm Engineer** **Responsibility:** • Participate in data engineering such as danmaku crawler, data cleaning and storage; project database danmaku data volume reaches 50 million (Python crawler and text preprocessing) • Responsible for text mining and text classification research of danmaku corpus, including sentiment analysis and text stance detection (using rules, statistical machine learning and deep learning methods) • Research on new word discovery algorithms in the field of danmaku corpus. • Research on the construction and application of subculture danmaku corpus. **Outputs:** Successful Acceptance of the Project; Billbill Danmaku Corpus*1; Academic Papers*3

Work experience

Jan. 2022- June. 2022	**Research Assistant(Full-time) in School of Management, Beijing Normal University, Zhuhai, Zhuhai, China** **Responsibility :** • Conducted research on the intelligent question answering system in the history of modern Chinese revolution, and completed the construction of the V1.0 version • Conduct research on text mining and classification of BillBill community danmaku chatter. I am mainly responsible for the stance detection research, experimental implementation and model comparison of BillBill's danmaku text.
Jul. 2021- Jan. 2022	**Development Intern(Full-time) in Orient Overseas Container Line (China) Ltd. Zhuhai, China** **Responsibility :** • Participate in the maintenance and development of the service background and front-end interface of the OOCL shipping logistics system My OOCL Center (MOC), etc., mainly responsible for the shipping order function module; support and repair the needs and feedback bugs of customers and business departments (technology stack: J2EE, JSP , Oracle, WebLogic, Apache Ant) • Participated in the reconstruction and development of OOCL container equipment transfer order system (EIR); (technical stack: Vue, SpringBoot, Oracle)

Professional Award

2019   **National Second Prize & First Prize of Guangdong Province** in *the 7th Teddy Cup Data Mining Challenge* (Title: Analysis of Safe Driving Behavior of Transport Vehicles), 2019
> *China University Big Data Education Innovation Alliance & Society for Industrial and Applied Mathematics of Guangdong Province*

2021   **The First Prize** in *2021 China University Students Mathematical Contest in Modeling, Guangdong Division* (Title: Credit Decisions of Small, Medium and Micro Enterprises)
> *Society for Industrial and Applied Mathematics*

2021   **Best Oral Presentation Award** in *the 10th IEEE International Conference on Education and Information Technology*
> *Conference Organizing Committee of ICEIT 2021*

2022   **Third Prize** in the *2nd Guangdong-Hong Kong-Macau College Student Public Administration Data Analysis Contest*
> *Sun Yat-sen University, City University of Hong Kong & University of Macau*

2020   **Third prize** in *the 8th "Challenge Cup" College Students' Extracurricular Academic Science and Technology Works Competition in Beijing Normal University, Zhuhai*
> *Beijing Normal University, Zhuhai*

Campus Experience/ Activity

Sept. 2020- present	**Student Career Development Association of School of Management of BNUZ** **Role: Director of Information Development Department** • Responsible for the daily operation of the association's official account, formulate the content of the official account (more than 70 tweets have been produced and modified in total), as well as 2 large-scale event video productions and multiple HTML5 invitation letter productions; department recruitment: plan and follow up the whole process of publicity, interview and training. • Won the "***Excellent Minister of the Month***" and "***Special Contribution Award***" during his tenure as a minister, leading the department to win "***Sector of the Year***".

Hobby

• Painting; Calligraphy;
• Sports (e.g. badminton, running and swimming).

WU Junchao
- Tel: +86 150 1826 2322
- Email: mc25653@um.edu.mo
- Hometown: Guangdong Province, China
- WeChat: chaochaoshuisi