Yueran Wang

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Education

Degrees

Tongji University (985 project university), P.R.China

M.S. in Construction Project Management (A+ in CDE)   2019 – Now

Shandong University (985 project university), P.R.China:

B.E. in Construction Project Management   2015 - 2019

Bachelor of Law   2015 - 2019

Standard Test

IELTS 7.0

Research Experience

Research on the knowledge system of construction cost based on knowledge graph   2020 - 2022

Graduate Student, with Prof. Xianyi Gao

Tongji University –Shanghai Municipal Electricity Power Company of State Grid Corporation of China, P.R.China, ￥500,000

Literature review

- Summarized the importance of applying knowledge graph technology in the AEC industry to make fragmented knowledge networked and make interdisciplinary collaboration easier
- Studied the future of knowledge graph technology in the AEC industry, such as safety management, risk control and e-learning

Prototype design

- Designed the structure of an e-learning platform based on the knowledge graph about construction cost and other knowledge in the AEC industry, in the form of a search engine with a case library and a graphical knowledge network
- Designed a process to build a knowledge graph in the AEC industry for e-learning, including entity extraction, ontology construction, relationship extraction, attribute extraction
- Designed the page layout and internal logic of the platform using Axure and finished a 30-page requirement document
- Made a demo of the knowledge graph based on Neo4j
- Participated in writing the first-phase research report, in charge of 115 pages

Ontology construction

- Wrote a program based on regular expression and syntactic dependency parsing using python to extract entities from books
- Constructed over 300 OWL ontologies on protégé working with experts

Research on the philosophy, method and practice of project governance and management in Beijing Daxing International Airport(BDIA) project   2021 – 2022

Research Assistant, with Prof. Guangbin Wang, Prof. Guangshe Jia and Prof. Xianyi Gao

Air Traffic Hub Engineering Research Centre, Tongji University – Beijing Daxing International Airport Headquarters, P.R.China, ￥1,450,000

Planning
- Participated in the planning of a series of books summarizing governance and management of the airport and finished a 118-page project planning document
- Coordinated the work between the research centre and the headquarters as liaison
- Participated in interviewing 28 leaders of the airport project and writing minutes of the interviews

Writing
- Wrote eight chapters of the project management and governance volume of the series, analyzed the difficulties, key points and highlights of the project

Research
- Summarized the philosophy, method and practice of complex megaprojects governance and management
- Built an affiliation network of participants of the project based on meeting minutes, analyzed the governance mode and the governance structure of the project
- Built a governance model of megaprojects as a complex system
- Compared the differences between Chinese and foreign governance modes of megaprojects

Data processing of a mediator of an econometric model 2021 - 2021

Technical support, with Dr Hanmin Li
- Screened out 14551 documents needed from 39433 documents using the regular expression based on python
- Wrote a program to identify text in PDF and save the text in TXT format and converted every document from PDF to TXT automatically using the program
- Wrote a program to split text, identify and count keywords of every document automatically, and form a matrix of the variable data

Policies of carbon emission control in AEC industry in China

Graduate student, with Prof.Xianyi Gao

Tongji University, P.R.China 2019 – 2020
- Discussed the contradiction between the territorial control of carbon emission in AEC industry and the non-territoriality of the air resource
- Designed four policies and built evolutionary game models under four policies to analyze the stable strategies of carbon emission control of multiple cities in a trans-provincial area
- Analyzed the results, figuring out the ideal policy which is breaking the inter-provincial barriers of territoriality and forming an inter-provincial multi-city cooperative governance alliance of carbon emission, and generalized it to the air pollution control

Teaching Experience

Teaching assistant, Tongji University 2020- 2020

Contract Management course for 35 undergraduate students;
- Graded quizzes and exams

Teaching assistant, Tongji University 2021- 2021

Construction Cost Evaluation course for 35 undergraduate students
- Graded quizzes and exams
- Collected and organized homework of students

Projects

i Worker 2017-2019

a project to help migrant workers in the AEC industry on Internet platforms

- Collaborated with four students to conduct a field study of migrant workers' information asymmetry of the employment market in the information age focused on weakening the asymmetry
- Wrote a research report based on the questionnaire survey(over 100), and the interview(over 15 migrant workers and two civil servants in the relevant government department)
- Created this project as a team leader with three undergraduate students and two graduate students and with the help of Enactus China
- Created and managed an official account on WeChat and QQ chat groups to provide information about job opportunities and rights protection, and designed an APP prototype
- Collaborated with Ruiwen law firm to provide legal advice

Awards

Second prize of Enactus China Social Innovation Competition	2018
Awarded for one of the best innovation projects(i Worker)	
Second prize of Shandong Province University Student Innovation and Entrepreneurship Competition	2018
First prize of Shandong University Innovation and Entrepreneurship Competition	2018
Second prize of Career Planning Competition of Management Department, Shandong University	2018
Outstanding field research in the Management Department, Shandong University(5%)	2016&2017

Reports

Analysis of Site Selection, Delivery and Scheduling of Shared Bikes	2019
Intention Analysis of Using "UnionPay" based on TAM	2019
Social Network Analysis of Users in Yahoo Finance Forum	2019
Investment Risk Analysis of Community Pension Project under PPP Mode	2020
Risk Identification and Evaluation of Aerial Work	2020
Research on Knowledge System of Construction Cost based on Knowledge Graph(Phase I)	2021

Skills

Research software

Python - Distributed web crawling, Text analysis, Data processing, Application of machine learning algorithms

Matlab - Multi-party evolutionary game modelling, Convex optimization modelling

Amos - Structural equation modelling, Technology acceptance modelling

Ucinet&Gephi – Social network analysis and visualization

SPSS - Linear regression, Non-linear regression, Principal components analysis, Time series analysis

Protégé – Ontology construction

Professional software

Revit, Microsoft Project, AutoCAD, Access, Neo4j

Other skills

Questionnaire design, Investment analysis, HTML design

Training and Certification

BIM Technology and Application, Online Course	2020
Mechanical Design with AutoCAD, ITAT	2018
Access Database Program Design, National Education Examinations Authority of China	2016

Dissertations

Bachelor Dissertation, Bachelor of Engineering

Enablers of project environmental practices in the Chinese construction industry: a structural equation modelling analysis, Prof.Ying Li, Shandong University

Master Dissertation(working), Master of Science

Dynamic governance of complex megaprojects: a case study of BDIA project, Prof.Xianyi Gao, Tongji University

Publications

Accepted

Yueran, W., & Xianyi, G. (2021). Formation of cooperative air pollution control alliance in inter-provincial and multi-city regions: Based on evolutionary game analysis. *Operations Research and Management Science*

Submitted

Yueran, W., & Xianyi, G. (2021). Policies for promoting star-rated green housing – static subsidy vs. dynamic subsidy. *Computers & Industrial Engineering*

Working

Rule-based automated entity extraction in the AEC industry
Ontology-based e-learning platform of construction cost
The governance mode of the BDIA project: evidence from meeting minutes