

YAoyao Qian

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<https://h-freax.github.io/>

EMPLOYMENT

Zhejiang Chongxiao Zhong Han Medical Technology Co May 2020 - September 2021
Technical Manager

- Built a development team from scratch and led the development of the internal management system; responsible for writing key code and controlling code quality and project progress.
- Developed a VC++-based DBI tool from scratch to facilitate the data flow from Access to Oracle, improving data efficiency by 30%.
- Developed an e-invoice management system interfaced with the hospital system using Springboot and Vue, improving business efficiency by 80%.

EDUCATION

Northeastern University September 2023 - present
Master in Information System

Wenzhou University of Technology September 2016 - June 2020
B.Eng. in Computer Science

- GPA: 3.69/4.00 (Top 5%)
- Advisor: Dr. Xu Xu
- Thesis: Dynamic Simulation Model of Airport Taxi Optimal Allocation
- Relevant Courses: Python Programming (96), Java Language Programming (96), Linear Algebra (94), JavaScript Language (99), Web Applied System Development (97), Mathematical Modelling and Experiments (95)

PUBLICATIONS

- **Yaoyao Qian** and Xianming Wang, "Analysis of Football Game Performance Based on Social Network," Proceedings of the 2022 International Conference on Artificial Intelligence, Internet and Digital Economy (ICAID), 2022.
- **Yaoyao Qian.** 2019. Arrival management device of new energy vehicle. CN Patent 201811144318.1. Issued March 08, 2019.
- **Yaoyao Qian.** 2018. Auxiliary construction terminal for construction worker. CN Patent 201810682890.7. Issued November 27, 2018.
- **Yaoyao Qian.** 2018. Convenient and fast type automobile solar protection device. CN Patent 201810489253.8. Issued October 19, 2018.
- **Yaoyao Qian.** 2018. Dual-purpose grabbing device with good supporting property for automobile tire. CN Patent 201810490339.2. Issued October 19, 2018.
- **Yaoyao Qian.** 2018. Tire leakage speed detecting device. CN Patent 201810489850.0. Issued September 28, 2018.
- **Yaoyao Qian.** 2018. Fireproof wireless base station. CN Patent 201810108827.2. Issued September 04, 2018.
- **Yaoyao Qian.** 2018. Clothes conveying device based on big data of fitting room. CN Patent 201810056907.8. Issued June 01, 2018.

RESEARCH EXPERIENCE

Wenzhou University of Technology, Wenzhou, China

April 2020 - May 2020

Research Assistant to Dr. Xianming Wang

- Analyzed impact factors of soccer teams strategies based on soccer game records.
- Conducted analytical modeling of contest records using social networks and degree centrality.
- The analysis of the Huskies and related soccer games revealed that teams were more focused on coordination and communication than individuals.

Institute of Modeling and Data Mining, Wenzhou, China July 2019 - December 2019

Research Assistant to Dr. Xu Xu

- Collected shopping site reviews from Amazon using BeautifulSoup.
- Conducted sentiment analysis on the corpus using Textblob.
- Created a user profile of the commenters using Wordcloud.

Wenzhou Bopu Institute of Big Data, Wenzhou, China September 2018 - January 2019

Technical Leader, Supervisor: Dr. Xianming Wang

- Conducted public opinion analysis based on news content crawled from Wenzhou News Network.
- Conducted Dictionary-based sentiment analysis.
- Implemented knowledge graph presentation by structuring a single news article.
- Used TextRank4ZH for news topic word extraction and topic “hotness” visualization.

PROJECTS

Bristol-Myers Squibb – Molecular Translation

April 2021 - May 2021

Independent Project (Kaggle 88/874, top11%)

- Converted images back to the underlying chemical structure annotated as InChI text.
- Used Resnet101d as the encoder, Transformer as the decoder, and Ranger Optimizer as the optimizer.
- Achieved a loss rate of 0.4% on the validation set, an average edit distance of 6 on the validation set, and an average edit distance of 1.88 on the test set.

Ming Law

January 2019 - May 2019

Independent Project

- Built a legal platform based on big data and artificial intelligence technologies.
- Public opinion analysis model: CNN was used to integrate word vectors for news classification, with an accuracy of over 93%; Echart was integrated to visualize the changing law of legal hot spots.
- Intelligent text error correction model: built an N-gram model to check whether there were errors, established confusion set for sorting, and took the result of highest score after error correction; trained and evaluated the model on a large legal document database.
- Q&A service: used semantic similarity weighted scoring strategy for Q&A; trained and evaluated the model on a large legal Q&A database.

Yao Yi Yao

October 2018 - October 2018

Technical Leader, in Collaboration with Beijing University of Chinese Medicine

- Built an application for recommending OTC proprietary Chinese medicine based on clinical symptoms for evidence type judgment.
- Integrated main clinical symptoms and evidence types of common over-the-counter Chinese medicines based on literature in the Chinese Science and Technology Journal Full Text Database.
- Implemented a recommendation algorithm based on logistic regression of the input clinical symptoms.

AWARDS AND HONORS

- Distinguished Employee, Zhejiang Chongxiao Zhong Han Medical Technology Co, 2020
- Outstanding Graduates of Zhejiang Province (5%) ,2020
- Gu Chaohao Scholarship (1 out of 8773, 0.01%), Wenzhou University, 2020
- University Student Science and Technology Innovation Star (1 out of 8773, 0.01%) , Wenzhou University, 2020
- Honorable Mention Award, Mathematical Contest In Modeling (MCM), 2020
- Meritorious Winner, Mathematical Contest In Modeling (MCM), 2019
- Third prize (two times), Zhejiang Province E-commerce Competition, 2018-2019
- First Prize, 12th National Student Electrical and Mathematical Modeling Competition, 2019
- Zhejiang Provincial Government Scholarship (3%), 2017-2019
- Outstanding student leaders, Wenzhou University, 2017-2019
- First Class Scholarship (5%), Wenzhou University of Technology, 2016-2019