Guoyi Wang

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Education

North Carolina State University, Raleigh, NC — Aug 2019 – May 2021
Master of Computer Science — GPA 3.9/4

Central China Normal University, Wuhan, China — Sep 2016 – Jun 2019
Master of Information Management — GPA 3.5/4

Sichuan Agricultural University, Sichuan, China — Sep 2010 – Jun 2014
Bachelor of Animal Science — GPA 3.3/4

Technical Projects

Climbing Wiki Website *Node.js, Express.js, Bootstrap 4, MongoDB*

- Built a climbing website with features such as login, user comments, ratings, and other features.
- The front-end was built using HTML, CSS, and Bootstrap 4.
- The back-end utilized Express and MongoDB to store relevant information associated with users and climbing info.

Online Shopping Website *Ruby on Rails*

- Built a online shopping website with features like login page, sort, filter, product page, wish list, mail notification, and other customized features to create a nice online shopping experience.
- The website front-end was build using haml, JQuery, and Materialize. The back-end uses Rails. RSpec was used to write unit tests.

Academic Projects

Plagiarism Detection for Online Test *Python*

- Implemented and optimized statistical algorithm for detecting plagiarism for different question types (Essay, Multiple-Choice and Fill-in-Blank questions).
- Tested predictions on real data which include 24 online exams and 1770 students in order to verify observed multiple true positives.

Learning Behavior Modeling *C++, Python*

- Applied two-layer hidden Markov to model online studying behavior of 25,783 log data entries and reveal the difference between high- and low-achievement students through visualized students' latent state.
- The student's latent state was used as a feature which improved accuracy to over 90% for the prediction of the final academic performance.

Publications

- **Guoyi Wang.**, Yun Tang., Junyi Li., Xiangen Hu. (2018) Modeling Student Learning Behaviors in ALEKS: A Two-Layer Hidden Markov Modeling Approach. Artificial Intelligence in Education. In Proceeding of the 19th Conference on Artificial Intelligence in Education, pp.374-378. Nominated for Best Poster and Student Poster
- Gehringer EF, Liu X, Kariya AD, **Wang G**.(2020) Comparing and Combining Tests for Plagiarism Detection in Online Exams. In International Conference on Educational Data Mining, pp. 605-609. 2020.

Skills

- Programming Languages: Java, Python, JavaScript, Ruby, R
- Web Technologies: Node.js, Express.js, React, Bootstrap4, CSS, Ruby on Rails