

# Qin Wu

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portfolio: <http://oneariaaa.github.io>

## SUMMARY

Highly motivated Information System Management new graduate seeks software engineer opportunities, with sufficient project experience in web development and machine learning; Quickly learn and master new technologies; equally successful in both team and self-directed settings.

## EDUCATION BACKGROUND

### Washington University in St. Louis

Master of Information system management

Saint Louis, Missouri

2019/08 – 2021/01

- GPA: 3.87/4.00
- Major Courses: Data Mining, Optimization, Introduction to Cybersecurity, IT Architecture and Infrastructure, Enterprise Data Management, Applied Data Science for Practitioner

### Sichuan Agricultural University

Bachelor of Engineering in Computer Science and Technology

Ya'an, China

2015/09 – 2019/06

- Average Scores: 87.8/100.0
- Major Courses: Data Structures and Algorithms, Algorithms Analysis and Design, Principle and Application of Database, Software Engineering, Computer Network

## RESEARCH EXPERIENCE

### GoParks Web Application

2021/01 – 2021/04

- Designed and implemented GoParks website that supports CRUD operations for users, parks and reviews depending on a user's authorization/ownership.
- Utilized RESTful architecture with Bootstrap 5 for styling; developed the backend using Node.js and Express framework; implemented MongoDB Atlas to store archives in cloud.
- Integrated Mapbox to provide parks' information and link on map based on the locations.
- Designed flash messages handling error and success results to provide users with feedback.
- Hashed password using a cryptographic salt by Passport.js to enhance the authentication mechanism.

### Regression and classification analysis on UCI wine dataset

2020/03 – 2020/04

- Preprocessed dataset by data cleaning, categorical feature transformation, missing value filling and standardization, etc.
- Executed linear regression, lasso regression and random forest to analyze the 14 chemical information variables of wine; obtained the model to calculate the predicted value;
- Implemented logistic regression, K-nearest neighbor algorithm and self-built model to learn the training set and evaluated the model through the average absolute error.
- Refined the model by finding the best parameters using grid search. The final accuracy rate reached 99.8%.

### MINST Handwritten dataset

2019/10 – 2019/11

- Applied Keras package to deploy the convolutional neural network; customized a VAE model; calculated the mean and variance of each number k; constructed normal distributions and performed sampling reconstruction.
- Customized a convolutional layer to calculate the loss between input image and decoded image.
- Applied cosine similarity comparison method to compare the similarity of the images; modified the number of dimensions and layers to generate the best parameters of the model.

## Leadership Experience

### Director of Propaganda Dept., Association of SAU Clubs

2016/05 – 2017/06

- Responsible for the new club member recruitment in the 2016 Hundred Regiment Campaign. Recruit nearly 10,000 participants. Design and issue 1,000 brochures for the activity.
- Participate in discussions and decision-making with the instructor and the Bureau of the Social Federation, and responsible for the overall arrangement of departmental work.
- Propose and implement the WeChat Official Account for the Association; Take charge of daily management of the account and gain 2000 followers during one-year's operations.

## COMPUTER SKILLS

- Programming languages: HTML/CSS, JavaScript, Python, SQL, Linux, MATLAB
- Tools: MongoDB, Node.js, Express.js, NPM, Bootstrap5, Ajax, jQuery, Visual Studio, Git/GitHub, Hadoop, Tableau