Hualiang (Ryan) Qin

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EDUCATION

Northwestern University   **Evanston, Illinois**
M.S. in **Artificial Intelligence** | GPA: 4.00/4.00   2021 Sept – present

University of Arizona   **Tucson, Arizona**
B.S. in **Computer Science, Psychological Science** | GPA: 3.77/4.00   2017 Jan – 2020 Dec

PROJECTS

Chicago Police Use of Force Cases Analysis   2021 Sept – 2021 Dec
Allied to CPDB (Citizens Police Data Project) to glean insights about Use of Force Cases
- Analyzed and processed datasets with **SQL** and visualized data with **Tableau** and **D3.js**
- Explored potential relationship of police officers with **GraphX** and **Google Colab**
- Performed sentiment analysis on allegations with **BERT** and then utilized the **Logistic Regression** model to inquire the impact of race in the heat of the situation

Image Classification for Detecting COVID-19   2021 Nov – 2021 Dec
- Using the **pretrained ResNet18** model (**PyTorch**) as baseline and compare the performance with self-designed **CNN** (**PyTorch**) and **Logistic Regression** (**scikit-learn**). Performance was evaluated by F1 score, which Logistic Regression performed the best

Handwritten Digits Classification (MNIST datasets)   2021 Oct – 2021 Nov
- Implementing **KNN** and **K-Means from scratch** and testing their performance with MNIST data, which both algorithms reached above 90% accuracy

Shopping Mall (Database querying website)   2020 Nov – 2020 Dec
- Designed the **ER diagram** of 7 tables and maintained the third normal form
- Created tables in Oracle Database with **JDBC API** and implemented the backend with **Spring Boot**, which supported tables modification through frontend interaction

Yelp Like Website   2020 Sept – 2020 Oct
- **React** frontend, **Node.js** backend and PostgreSQL database, was deployed on Heroku
- User can post, delete, comment, and rate restaurants. Restaurants can be searched by its name, stars, address, and be ordered by name or stars

EXPERIENCE

Advanced Artificial Intelligence, LLC   **Tucson, Arizona**
Backend Engineer Intern   2020 May – 2020 Aug
- Backend Development of an e-commerce website using **Django RESTful framework**

Psychophysiological Laboratory   **Tucson, Arizona**
Research Assistant   2019 Aug – 2020 May
  Partnered with PhD students to analyze Left-behind Children Data
- Data cleansing, data analysis on the left-behind children data with the usage of **SPSS**
- Using **Linear Regression** to explore the impact of self-esteem and positivity factors

SKILLS

Programming Languages: Python, Java, SQL, R, C, HTML+ CSS + JavaScript
Packages: Pandas, Numpy, Pytorch, Matplotlib, Scikit-learn, TensorFlow, Django
Tools: Tableau, AWS, Oracle Database, Linux, PostgreSQL, MATLAB, SPSS
Statistics/ML: Linear/Logistic Regression, Random Forests, Clustering, Neural Network