# **XU HAN**

170C Discovery Learning Center (DLC) ♦ 430 UCB, Boulder, CO, 80309 (+1) 720 3451591 ♦ xuha2442@colorado.edu ♦ https://knights207210.github.io

#### **EDUCATION**

#### Ph.D. Student in Computer Science

Sep 2017 - Present

University of Colorado Boulder, Boulder, USA

Research Interests: Human Computer Interaction, Data Science, Data Visualization

Advisor: Tom Yeh GPA: 4.0 /4.0

### **B.E.** in Electronic Engineering

Sep 2013 - Jun 2017

University of Science and Technology of China, hefei, China Undergraduate Thesis Advisor: Joern Ostermann, Zhibo Chen

#### PROFESSIONAL EXPERIENCES

#### **Alexa Skills Evaluation**

Jun 2018 - Sep 2018

Sikuli Lab, University of Colorado Boulder, USA

- · Developed a voice skill crawler to collect responses from 100 most popular Aelxa skills (Python)
- · Analyzed responses data and studied these skills' compliance situations of current design guidelines
- · Proposed research agenda for future evaluation tool development
- · Paper is under review

# e-Health Tutorial for Elder People using Browser Extension

Jun 2018 - Present

Sikuli Lab, University of Colorado Boulder, USA

- · Designed and developed a browser extension tutorial to guide elder people to explore health information website
- · Designed user studies to evaluate user experiences of different version of tutorials

# **Recommendation System Implementation and Visualization Based on Yelp Data** March 2018 - May 2018 University of Colorado Boulder, USA

- · Deployed machine learning methods to built a recommendation system based on the prediction of user's rating for business (Pyhton, SQL), the result of Collaborative Filtering algorithm as references
- · Blended several machine learning models by assigning weights and achieved best performance(AUC = 0.82)
- · Visualized the selected features, feature rankings and model training process (Javascript, HTML & CSS)

#### **Repeat Buyer Prediction Based on User Online Shopping Logs**

Oct 2017 - Dec 2017

University of Colorado Boulder, USA

- · Deployed machine learning techniques to predict whether a customer will become a repeat buyer (Python, SQL)
- · Focused on feature engineering, extracted 129 features(user demographic features, user behavioral features, merchant-related features, user-merchant interaction features, big promotion features, slope features, similarity features, PCA features) and conducted feature ranking analysis
- · Ranked top 25% in the competition panel

#### **Contact-free Camera Measurements of Heart Rate**

Feb 2017 - May 2017

Institute for Information Processing, Leibniz University Hannover, Germany

- · Implemented heart rate detection algorithm based on human face video (MATLAB)
- · Optimized the algorithm under different application scenarios and generated algorithm optimization guidelines
- · Proposed an updated algorithm specifically for head rotation situation

#### **AWARDS**

CSC(China Scholarship Council) National Scholarship	2017
UTSIP Scholarship, University of Tokyo	2016
Outstanding Student Scholarship, University of Science and Technology of China	2016, 2015, 2014
The Best Technology Award, Robogame 2015, University of Science and Technology of China	2015

#### TEACHING EXPERIENCES

## Teaching Assistant, CS Department, University of Colorado Boulder

Jan 2018 - May 2018

• Teaching Principles in User Centered Design and Prototyping (CSCI3002: Human Centered Computing and Development)

## Teaching Assistant, CS Department, University of Colorado Boulder

Sep 2017 - Dec 2017

• Teaching data structures in C++ (CSCI2270: Data Structures)

#### **RELEVANT SKILLS**

Languages: C, C++, Python, Javascript, HTML & CSS, SQL, MATLAB Software, System & Library: PostgreSQL, Git, Tableau, Linux, openGL