# **YUYI QU**

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#### **EDUCATION**

University of Michigan, Ann arbor, MI

Bachelor of Science in Computer Science Engineering May 2020

GPA: 3.96/4.0

UM-SJTU Joint Institute, Shanghai, China

Bachelor of Science in Electrical and Computer Engineering Aug 2020

GPA: 3.63/4.0

#### PROJECT EXPERIENCE

### Crowdsourcing the Generation of More User-Efficient Clarifications in Conversational Systems

Jul 2019 - Present

- Implemented a hybrid workflow that optimizes over information gain and answerability.
- Compared different levels of presentation of the computer's knowledge and found that entropy with ranking is most informative and interpretable for humans.
- Collected synthetic end user data; Designed and conducted an experiment on Amazon Mturk.

### **Conversational AI - Travel Plan Assistant**

Sept 2019 - Present

- Built a conversational AI that simulates a travel agency to generate travel itineraries for users.
- Trained an intent classifier and slot extraction classifiers using end-to-end recurrent and bi-direction LSTM neural network with crowdsourced and manually labeled data.
- Integrated Clinc conversation AI platform into interaction among frontend, backend, business log server, Google ASR and other third party APIs like TripAdvisor.

### **Active Learning with Rule Creation**

May 2019 - Aug 2019

- Introduced a hybrid approach that generates concept-based rules by leveraging people's semantic knowledge to reduce labeling efforts for large text dataset.
- Clustered the data into keyword-based patterns using Latent Dirichlet allocation (LDA).
- Classified examples by computing cosine similarity with glove word embedding and setting a threshold.

### **User-Generated-Content Badge Design with Social Status Valuation**

May 2019 - Aug 2019

- Calculated optimal mechanism to maximize user contribution to UGC websites.
- Interpreted realistic significance of concave, convex, linear and arbitrarily-shaped status function.

## Website classifier

Dec 2018 - May 2019

- Processed raw HTML files collected by Censys and manually labeled categories for 200 websites.
- Implemented a classifier to analyze the composition of the Internet and how it changes over time.

# **ACTIVITY**

Croma lab research assistant
Girls-Encoded, Explore CS
UM-SJTU JI Volunteer Teaching Group

May 2019 - Present Oct 2018 - Present

Dec 2017 - Feb 2018

## **SKILLS**

Language: Mandarin, English, Korean(Introduction)

Computer: Python, JavaScript, HTML, C, C++, MATLAB, Linux, Microsoft Office software