Yuyi Qu

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EDUCATION

University of Michigan, Ann arbor, MI

Bachelor of Science in Computer Science Engineering; GPA: 3.96/4.0   *May 2020*
- ○ **Honors/Awards:** Undergraduate Excellent Scholarship
- ○ **Relevant Coursework**: Machine Learning, Conversational Artificial Intelligence, Database Management, Computer Security, Computer Networks, Data Structure & Algorithms, Linear Algebra

UM-SJTU Joint Institute, Shanghai, China

Bachelor of Science in Electrical and Computer Engineering; GPA: 3.75/4.0   *Aug 2020*
- ○ **Honors/Awards:** Dean's List, University Honors
- ○ **Relevant Coursework**: Probability & Statistics, Discrete Math

PROJECT EXPERIENCE

Crowdsourcing the Generation of More User-Efficient Clarifications   *Aug 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*
- ○ Led a team of 8 to build a conversational AI that assists users to generate travel itineraries.
- ○ Trained an intent classifier and slot extraction classifiers using end-to-end recurrent and bi-direction Long Short-Term Memory(LSTM) neural network with crowdsourced and manually labeled data.
- ○ Constructed the interaction between frontend, backend, Google ASR, Google firebase and other third party APIs like TripAdvisor; Integrated Clinc AI platform into the structure.

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) and classified examples by computing cosine similarity with Glove word embedding.
- ○ Elicit high-level human knowledge in the form of labeling rules and encoded it into labeling functions.

User-Generated-Content Badge Design with Social Status Valuation   *May 2019 - Aug 2019*
- ○ Modeled users' utility function of contributing to UGC websites and calculated the nash equilibrium of it and found the optical mechanism that maximizes user contribution.
- ○ 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 of 200 websites.
- ○ Implemented a classifier and analyzed the composition of the Internet and how it changes over time.

ACTIVITY

Croma Lab Research Assistant	*May 2019 - Present*
Girls-Encoded, Explore CS	*Oct 2018 - Present*
UM-SJTU JI Volunteer Teaching Group	*Dec 2017 - Feb 2018*

SKILLS

Language: Mandarin, English, Korean(Introduction)

Computer: Python, JavaScript, HTML, C, C++, MATLAB, Linux, Meteor JS, Flask, Git, LaTeX, MongoDB