DI 'CATHY' WANG

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I am seeking a software engineer intern for 2020 summer with rich web application development experience in multiple languages.

EDUCATION BACKGROUND

University of California San Diego (UCSD)   **Sep 2019-present**
M.S in Computer Science (Human-computer Interaction Track)

Shanghai Jiao Tong University (SJTU)   **Sep 2014-Jun 2018**
B.S.E. in Information, *Outstanding Graduate (5/100)*   GPA: 88/100
Core Courses: Data Structure, Algorithm Design and Analysis, Operating System, Computer Architecture

SKILLS

Programing Languages: JAVA, C++, Python, JavaScript, HTML, CSS
Platform & Tools: Rasa, Mturk; (**Server**) Heroku, Azure, Aliyun; (**Linux**) CentOS, Ubunto; (**SQL**) MySQL, PostgreSQL; (**Python Web**) Flask; (**Java Web**) Tomcat, Spring MVC; (**Project management**) Git, Maven, SVN;

WORK EXPERIENCE

Software Engineer Intern, Shanghai China   **Shanghai Firsttech Software co., LTD**   **May 2019-July 2019**
- Designed and implemented an intelligent assistant using Java Web on an e-commerce site for over 100,000 users, which reduces the workload of customer service staff and make it easy to maintain and extend new features for nontechnical people
- Implemented the speech interface using Rasa natural language understanding model and dialogue management model, deployed them on an Aliyun server (the equivalent of AWS in China)
- Collected user requirements, analyzed the data and built the dataset (stored in MySQL) to train the model
- Implemented user interface using BotUI.js

RESEARCH EXPERIENCE

Natural Language Recommender Building Blocks via Mechanical Turk   **University of Minnesota**   **Aug 2018-Nov 2018**
(Advisor: Prof. Joseph Konstan)
- Implemented a website with Flask to collect users' voice when asked for movie recommendations, traversed the speech to text using Web Speech API, saved the data into PostgreSQL database and deployed the website on Heroku
- Improved the performance in interface learnability, user response variety, and query integrity by showing user keywords as movie information instead of example recommendation queries or movie posters
- Increased the valid answer ratio from 30% to over 90% by revising the tutorial and instructions based on the results of pilot tests on Amazon Mechanical Turk with 40 workers

Geno: enhancing web accessibility with auto-generated voice input   **UCLA**
(Advisor: Prof. Anthony Chen; Collaborator: Yunpeng Ding)
- Research and Design   **Dec 2018-Jan 2019**
    - Identified the limitations of state-of-the-art voice interface and determined the research direction: to build an IDE to make adding good voice interface easier
    - Designed the IDE architecture and user interfaces from scratch, combining NLU model and visual programming
- Backend Implementation   **Sept 2019-present**
    - Deployed Rasa NLU model on an Azure server, realized remote control and provided easy-to-use API
    - Assign, manage and recycle the processes and ports manually to support multi-user environment

Study of High-speed Railway Transferring Strategy   **SJTU**   **Jul 2017-Jun 2018**
(Advisor: Prof. Tong Ye)
- Modified Dijkstra Algorithm by assigning edge value dynamically to cater for HSR system efficiency
- Lowered RMSE of predicted passenger traffic to 16.84 by combining Deep Residual Neural Network and ARMA (autoregressive moving average) Model with Keras
- Decreased the passenger delay from +3.8% to -7.5% by utilizing the modified Dijkstra algorithm and ARMA-Neural Network prediction model

LEADERSHIP

HCI (Dance Machine) Contest Team | Team Leader   **SJTU**   **Mar 2017-Jun 2017**
- Led a 15-people team to design and build an innovative dance machine and won 1st place
- Designed the effects, managed the project by assigning tasks and inspecting progresses weekly
- Created a comfortable work atmosphere by respecting and listening to everyone's opinion

SEIEE Debate Team | Captain   **SJTU**   **Sep 2014-Sep 2016**
- Led the team to participate in SJTU Freshman Cup (09/2015) and Confederations Cup Debate Competition (04/2016)
- Organized recruiting process and the daily trainings and designed the team logo