

Qiyu Zhi

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Research Interests

Human-Computer Interaction, Data Visualization, Natural Language Processing

EDUCATION

University of Notre Dame Ph.D. in Computer Science and Engineering	Notre Dame, IN	2015 - expect 2020 GPA: 3.7
Beijing University of Posts and Telecommunications (BUPT) B.Eng. in Information Engineering	Beijing, China	2011 - 2015 GPA: 3.6

EXPERIENCE

Research Intern **Fujitsu Laboratories of America, Inc** **Sunnyvale, CA** **July 2018 - Oct 2018**

- API Learning
 - Machine learning based method for efficiently searching and validating APIs and their mashups
 - Delivered an automated pipeline for scraping API usage code with Github API, extracting URL and parameter information from 6985 Github repositories, and mining API mashup combinations
 - Designed and implemented an API recommendation system and a visual user interface (UI) based on AJAX for API mashup recommendation and exploration (Linux, keras, Python Flask framework) [2]

Research Assistant **University of Notre Dame** **Notre Dame, IN** **Jan 2016 - Present**

- GameViews
 - Built an intelligent system to present real-time information summary for basketball writers and fans
 - Developed an automated pipeline for collecting basketball game data with NBA API, labeling game video, updating real-time statistical information, and representing the massive amount of sports data in visual format
 - Conducted observation studies and quantitative analysis on basketball stories to collect users' needs
 - Design and conducted lab study with writers and fans to evaluate the implemented visual system, derived [1]
- TextVisCoupling
 - Built a system to automatically analyze text and visualizations and interactively link them correspondingly
 - Designed an algorithm for extracting visual-related sentences with NLTK and Stanford CoreNLP tools
 - Conducted crowdsourcing study on Amazon Mechanical Turk to evaluate the system with 250 participants
- VisPod
 - Implemented TextTiling, a topic-based text segmentation algorithm, on news document
 - Proposed and implemented an LSTM-based model for generating the topic name of a short text paragraph
 - Built a visual system for supporting effective navigation on audio files, derived [3]

Research Intern **Tsinghua University** **Beijing, China** **June 2014 - Sep 2015**

- Natural Language Processing
 - Proposed and implemented a Chinese weibo sentiment analysis tool using the **SVM classifier**
 - Runner-up of 2014 TAC Knowledge Base Population (KBP) Entity linking track, ranked 2/20

SKILLS

UX Methods: A/B testing, surveying, usability test, interview, experiment design, observation, card sorting

Programming Language: Python, Java, JavaScript(proficient); R, C++ (familiar); LaTeX, Matlab (working knowledge)

Machine learning and NLP: scikit-learn, pandas, keras, weka, mangoDB, NLTK, TensorFlow

SELECTED PUBLICATIONS & PATENT

[1] **Qiyu Zhi**, Suwen Lin, P. Sukumar, and Ronald Metoyer. "GameViews: Understanding and Supporting Data-driven Sports Storytelling" In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (**CHI'19**)

[2] **Qiyu Zhi**, Lei Liu, and Wei-peng Chen. "A system for API mashups exploration and recommendation" United States patent, issued 2018 (US. Patent'18)

[3] **Qiyu Zhi**, Suwen Lin, Shuai He, Ronald Metoyer, and Nitesh Chawla. "VisPod: Content-Based Audio Visual Navigation" In 2018 International Conference on Intelligent User Interfaces Demo (IUI'18)