

# Qiyu Zhi

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## EDUCATION

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### University of Notre Dame

Ph.D. in Computer Science and Engineering, Advisor: Ronald Metoyer

Notre Dame, IN

2015 - 2020.09

### Beijing University of Posts and Telecommunications (BUPT)

B.Eng. in Information Engineering

Beijing, China

2011 - 2015

## EXPERIENCE

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### Ph.D. Software Engineer in Machine Learning Intern Facebook Seattle, WA June 2019 - Aug 2019

- Implemented pipelines to aggregate actor-level features of billions webpages shared in FaceBook
- Trained deepwalk graph embedding and pagerank score of authorship features for detecting low-quality pages
- Proposed and designed authorship conflation logic to merge same authors across different web domains

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

- Delivered an automated pipeline for scraping API usage code with Github API, extracting URL and parameter information from 98,710 Github repositories, and mining API mashup combinations
- Benchmarked the collected API recommendation dataset on CNN, FastText, and LSTM text classification models
- Implemented a bidirectional-LSTM based sentence classification model to recommend APIs for developers
- Developed an interactive user interface to enhance the API search and exploratory experience for developers

### 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
  - Designed and conducted lab study with writers and fans to evaluate the implemented visual systems
- 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

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

- 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

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

**Programming and Data Visualization:** Python, JavaScript, Java, PHP, D3.js, Tableau, Flask framework

**Machine learning and NLP:** scikit-learn, pandas, keras, SQL, presto, spark, PyTorch

## SELECTED PUBLICATIONS & PATENT

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

[2] **Qiyu Zhi**, Alvitta Ottley, and Ronald Metoyer. "Linking and Layout: Exploring the Integration of Text and Visualization in Storytelling" In 21st EG/VGTC Conference on Visualization (EuroVis'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)