

# Kexin Yang

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## Research

### Automatic Feedback System for Students Writing

PI: Dr. Carolyn Rosé, Language Technology Institute, CMU

- In collaboration with Turnitin, developed a flowchart, guidelines and an intelligent tutoring system for Rhetorical Structure Theory
- Used Natural Language Processing (dependency parsing) and deep learning to automate the process of structural feedback giving

### Teacher Sourcing Hints for Intelligent Tutoring System

PI: Vincent Aleven, Human-Computer Interaction Institute, CMU

- Based on a real use case, developed a new mechanism of leveraging teachers' expertise and crowdworkers' time to improve on hints in a math intelligent tutoring system at lower cost

### Role-play Platform for Eliciting Learners' Knowledge (ELK)

PI: Justin Reich, MIT Open Learning

- Coded and analyzed data of ELK, a teacher education platform, to improve teachers' ability of eliciting students' prior knowledge

### Negative Transfer of Mandarin to English Phonetics (BA thesis)

Advisor: Dr. Hui Yu, School of Foreign Language Literature, BNU

- Performed an observation study and analyzed 39 students' English phonetics data for transfer on segmental and suprasegmental phoneme level using PRAAT

## Professional Experience

### Renaissance Learning (Capstone)

Pittsburgh, PA

Data Analyst/ UX researcher

Jan 2019- Aug 2019

- Data-mined a large educational database to build a dashboard to inform school administrators' data-driven decisions
- Worked with clients to address their business need in the education market by conducting user-research (interview, co-design) with target users

### Knovva Academy

Beijing, China

Instructional Designer

Dec 2017 - Mar 2018

- Designed lessons to develop students' higher-order skills through reading literature, including *Guns, Germs and Steel*
- Initiated strategy of online activities to attract 76 potential students in the RLG reading literacy program

### Beijing 101 High School

Beijing, China

K-12 English Teacher/ Head Teacher

Oct 2017- Dec 2017

- Taught English to 150 9th grade students to prepare them for a high school entrance exam
- Organized STEAM education activities including crafting students agriculture learning experiences

### Foreign Language Teaching and Research Press

Beijing, China

Digital Media Editor

Jul 2017- Oct 2017

- Increased young audience through transferring educational periodicals from paper-media to digital media (Wechat)

## Education

### Carnegie Mellon University (CMU)

Pittsburgh, PA | Aug 2018-Aug 2019

#### Human-Computer Interaction

#### Institute, School of Computer Science

MS in Educational Technology and Applied Learning Science (METALS),

• GPA: 3.96/4.33

• Merit Scholarship Recipient

### Beijing Normal University (BNU)

Beijing, China | Aug 2014-Jul 2018

BA in English Language Literature

• GPA: 3.87/4.00

• Graduated with honors

## Publication

[1] Shiyan Jiang, **Kexin Yang**, Chandrakumari Suvarna, Pooja Casula, Mingtong Zhang and Carolyn Rosé

"Applying Rhetorical Structure Theory to Student Essays for Providing Automated Writing Feedback", NAACL workshop, Jun.2019

## Skills

### Technical Skills

Python, R, HTML, CSS, JS, SQL

Machine Learning,

Data Analysis and Visualization

### Software Skills

Weka, LightSIDE, Tableau, D3, PR, CTAT

PRAAT

### UX Research & Design:

User-testing, Cognitive Task Analysis,

Contextual Inquiry, Cognitive Modeling,

Storyboarding, Prototyping

### Languages

English (Proficient) Chinese (Native)

French (Intermediate) German (Beginner)

### Certificates

Secondary Teacher Certificate (English)

CATTI (China Accreditation Test

for Translators and Interpreter)

### Standard Tests

GRE:330+4.5, TOEFL:116, IELTS:7.5