Ruanqianqian (Lisa) Huang

rh@rlisahuang.com | https://rlisahuang.com

EDUCATION

University of California San Diego, San Diego, CA Ph.D. Student in Computer Science and Engineering

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Advisor: Sorin Lerner

Wellesley College, Wellesley, MA

2016 - 2020

2020 - Present

B.A. (summa cum laude) in Computer Science (Honors) & Cognitive and Linguistic Sciences Thesis: The Design and Implementation of *Venbrace*, a Text Language for App Inventor

RESEARCH EXPERIENCE Graduate Student Researcher, UC San Diego Programming Systems Group

2020.8 - Present

FRIENCE PI: Prof. Sorin Lerner

* Design and implement live programming prototypes and evaluate through user studies.

Undergraduate Researcher, Wellesley College TinkerBlocks Research Group PI: Prof. Franklyn Turbak

2019.1 - 2020.7

- * Designed and developed *Venbrace*, a textual syntax that represents MIT App Inventor coding blocks.
- * Implemented an HTML-embeddable, syntax highlighted *Venbrace* editor that tracks user behavior.
- * Designed and executed user studies to evaluate the syntax of *Venbrace*. (Study Overview)

Undergraduate Research Assistant, Wellesley College HCI Lab

2018.1 - 2018.10

PIs: Prof. Panagiotis Metaxas and Prof. Catherine Delcourt

- * Implemented and maintained a user-centered interactive visualization for TwitterTrails using D3.js.
- * Developed scripts that read, purify, and analyze data from *TwitterTrails*'s database.

RESEARCH ARTIFACTS

R. Huang. "The Design and Implementation of Venbrace, a Text Language for App Inventor." Bachelor's thesis, Wellesley College, Wellesley, MA, May 2020.

R. Huang and F. Turbak. "A Design for Bidirectional Conversion between Blocks and Text for App Inventor." 2019 IEEE Blocks and Beyond Workshop (B&B), Memphis, TN, USA, 2019, pp. 87-89, doi: 10.1109/BB48857.2019.8941197.

R. Huang and F. Turbak. "Bidirectional Conversion between Blocks and Text for App Inventor." Poster presentation at the *MIT App Inventor Summit*, Cambridge, MA, Aug. 2019.

R. Huang*, B. Garcia*, C. Delcourt, P. Metaxas, and O. Shaer. "Interactive Visualizations and Credibility Evaluations of News Stories on TwitterTrails: A User-Centered Approach." Poster presentation at *Wellesley College Summer Research Program*, Wellesley, MA, Aug. 2018.

INDUSTRY EXPERIENCE

Data Analysis Intern, Apple Cloud Infrastructure

2019.5 - 2019.8

- Apple Inc., Cupertino, CA
 - * Forecast future fleet changes to optimize hardware resource allocation with 88.38% accuracy.
 - * Automated a recurring manual report for Finance by improving the API for search queries.

Software Engineering Intern, Natural Language Processing Lab

2017.6 - 2017.7

Avatar Works, Xiamen, Fujian, China

* Assisted chat bot development by processing and analyzing Chinese textual data using NLTK.

TEACHING EXPERIENCE Tutor, CS 251: Principles of Programming Languages
Tutor, CS 230: Data Structures

2019.9 - 2019.12 2018.1 - 2018.12

Club Facilitator and TA, Girls Who Code Club at Wellesley, MA

2017.9 - 2017.12

Ι

Student Scholarship for PLMW at POPL 2021	2021
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Academic Achievement Award in Computer Science, Wellesley College	2020
Sigma Xi Honors Research Society, Wellesley College	2020
Jerome A. Schiff Fellowship, Wellesley College	2019
Phi Beta Kappa Honor Society (elected as a junior), Wellesley College	2019
Wellesley College Science Center Research Award	2018
Wellesley College Music Department Sandra Wieland Howe Scholarship	2017
Wellesley College Chamber Music Society	Executive Board Member, 2017.9 - 2020.5
Harvard PBHA Chinatown Teen	Mentor, 2016.9 - 2017.5
Significant experience with:	
	Sigma Xi Honors Research Society, Wellesley College Jerome A. Schiff Fellowship, Wellesley College Phi Beta Kappa Honor Society (elected as a junior), Wellesley College Wellesley College Science Center Research Award Wellesley College Music Department Sandra Wieland Howe Scholarship

SKILLS

 $Programming\ Languages:\ Python,\ TypeScript,\ JavaScript,\ Haskell,\ Java,\ R,\ MySQL$

Tools: jQuery, ANTLR, Pandas, NumPy, Plotly, matplotlib

Natural Languages: Mandarin (Native), Cantonese

Moderate experience with:

Programming Languages: C, Racket, Standard ML Tools: D3.js, PyDruid, Flask, Scikit-learn, NLTK

Natural Languages: French