Ruanqianqian (Lisa) Huang

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EDUCATION	**University of California San Diego**, La Jolla, CA	2020 - Present

University of California San Diego, La Jolla, CA — 2020 - Present
Ph.D. Student in Computer Science
Advisor: Sorin Lerner

Wellesley College, Wellesley, MA — 2016 - 2020
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

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TECHNICAL SKILLS

Significant experience with:
Programming Languages: Python, TypeScript, JavaScript, R, HTML/CSS, Scala
Tools/Libraries: pandas, matplotlib, ggplot2, dplyr, ANTLR4, Node.JS, jQuery

Moderate experience with:
Programming Languages: Haskell, Java, MySQL, C, Racket, Standard ML
Tools/Libraries: D3.js, PyDruid, Flask, Scikit-learn, NLTK

RESEARCH EXPERIENCE

Graduate Student Researcher, **Programming Systems Group, UC San Diego** — 2020.8 - Present
Advisor: Sorin Lerner | *Skills:* Live Programming, Program Synthesis, Large-scale User Studies, Qualitative Analysis
* Designing, implementing and evaluating programming tools for novice programmers and software engineers.

Researcher, **Department of Computer Science, Wellesley College** — 2019.1 - 2020.7
Advisor: Franklyn Turbak | *Skills*: Programming Language Design, Quantitative Analysis of User Interactions
* Designed and developed Venbrace, a text language for App Inventor's visual coding blocks.
* Implemented an HTML-embeddable, syntax highlighted editor for Venbrace that repairs malformed code.
* Designed and executed online controlled experiments to evaluate the syntax of Venbrace. (Study Overview)

Undergraduate Research Assistant, **HCI Lab, Wellesley College** — 2018.1 - 2018.10
Advisors: Panagiotis Metaxas and Catherine Delcourt | *Skills*: Data Visualization, Iterative Design
* Implemented an interactive visualization for TwitterTrails, a platform for Tweet trustworthiness assessment.
* Developed data cleaning and analysis scripts for TwitterTrails' database.

RESEARCH ARTIFACTS

Ruanqianqian Huang, Kasra Ferdowsifard, Ana Selvaraj, Adalbert Gerald Soosai Raj, Sorin Lerner. Impact of Live Programming on Student Learning in a CS1 Course. *In preparation.*

Ruanqianqian Huang. 2020. *The Design and Implementation of Venbrace, a Text Language for App Inventor.* Bachelor's thesis. Wellesley College.

Ruanqianqian Huang and Franklyn Turbak. 2019. A Design for Bidirectional Conversion between Blocks and Text for App Inventor. In *2019 IEEE Blocks and Beyond Workshop (B&B)*, Memphis, TN, USA, 2019, pp. 87-89.

TALKS

Programming with Live Programming — Apr. 2021
Programming Systems Group, UC San Diego, La Jolla, CA

The Design and Implementation of Venbrace, a Text Language for App Inventor — May 2020
App Inventor Team, Massachusetts Institute of Technology, Cambridge, MA

Bidirectional Conversion between Blocks and Text for App Inventor — Aug. 2019
MIT App Inventor Summit, Cambridge, MA

Interactive Visualizations and Credibility Evaluations of News Stories on TwitterTrails — Aug. 2018
Wellesley College Summer Research Program, Wellesley, MA

INDUSTRY EXPERIENCE

Data Analysis Intern, **Cloud Infrastructure, Apple Inc.,** Cupertino, CA   2019.5 - 2019.8
* 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, **NLP Lab, Avatar Works,** Xiamen, Fujian, China   2017.6 - 2017.7
* Assisted with chat bot development by processing and analyzing Chinese textual data using NLTK.

TEACHING EXPERIENCE

Tutor, **Principles of Programming Languages, Wellesley College**   Fall 2019
* Moderated discussions and helped students debug their homework assignments in office hours.

Tutor, **Data Structures, Wellesley College**   Spring 2018, Fall 2018
* Moderated discussions and helped students debug their homework assignments in office hours.
* Delivered individual tutoring sessions on a per request basis.
* Assisted instructors in grading homework assignments.

HONORS

Student Scholarship for PLMW, POPL 2021   2021
Trustee Scholar, Wellesley College   2020
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

SERVICE

Executive Board Member, **Wellesley College Chamber Music Society**   2017.9 - 2020.5
Club Facilitator and TA, **Girls Who Code Club (Wellesley, MA)**   2017.9 - 2017.12
Mentor, **Harvard PBHA Chinatown Teen**   2016.9 - 2017.5