# JUNNAN YU

Researcher, Designer, & Maker | junnan.yu@colorado.edu | http://junnanyu.com/

## EDUCATION

**Ph.D. Student in Information Science**
08/2017 – Current | *University of Colorado Boulder (CU Boulder)*, CO, USA
Concentration: Interactive learning technologies for children, computational thinking, Child-Computer Interaction
Advisor: Dr. Ricarose Roque

**Master of Arts in Design** (**Graduated with honor**)
09/2014 – 03/2017 | *Shanghai Jiao Tong University (SJTU)*, Shanghai, China
Concentration: Human-Computer Interaction, Usability study, UX/UI
Advisor: Dr. Ting Han

**Bachelor of Engineering in Industrial Design**
09/2010 – 06/2014 | *Zhejiang University (ZJU)*, Hangzhou, China
Design thinking and methods, Product/Interaction design

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## EXPERIENCES

**Research Assistant**
08/2017 – Current | Creative Communities research group, Department of Information Science, CU Boulder. Selected projects:

- **Embodied Learning & Computing**: We are designing tools for children to explore computational thinking through physical play activities that engage children, their peers, and parents under the framework of embodied learning.
- **Parents' Perspectives on Computational Toys & Kits**: To better understand parents' perspectives and roles regarding their young children's use of computational kits, we performed interviews with parents so that computational kits can better support the important roles parents can play in their children's play with computing.
- **Computational Toys & Kits Survey**: We conducted a survey of existing computational toys and kits designed for young children, which reveals the commonalities across existing kits and highlights ways to expand the possibilities for children to create, explore, and play with computing.
- **Civic Engagement through Computing**: We examined programs that were designed to support youth civic engagement through computing. Based on the analysis of these programs, we discussed how to support computing-based youth civic engagement.
- **Family Creative Learning** (facilitator): A series of workshops that support intergenerational learning using creative technologies like Scratch and Makey Makey. Led by Dr. Roque, we are exploring research questions such as the role parents play in children's experiences with computing and how informal learning educators support creative computing experiences.

09/2014 – 03/2017 | Design Management Institute, School of Media and Design, SJTU. Selected projects:

- **Localization of Text CAPTCHA**: Taking the usability investigation of Chinese CAPTCHAs as a case study, we compared the usability of CAPTCHAs based on English and Chinese languages, explored the intrinsic factors that may affect the usability of Chinese CAPTCHAs, and proposed a generalized procedure for designing usable localized text CAPTCHAs.

**Teaching Assistant**

- *INFO 1201 Computational Reasoning I (Python)*, CU Boulder, Fall 2017, Spring & Fall 2018, Spring 2019
- *The Art of Design Innovation (AR903)*, SJTU, Spring 2015
- *Product Design II (ID310)*, SJTU, Fall 2014

- *Asia Leadership Programme*, ZJU & Singapore University of Technology and Design, Summer 2014

**UX/UI & Product Designer**
06/2015 – 11/2015 | Hongtao Industry Development Co.,Ltd & Design Management Institute, SJTU, Shanghai, China
- Responsible for part of the wireframes and UI/UX design of a financial website development

12/2014 – 05/2015 | Guangzhou Wondfo Biotech Co.,Ltd & Design Management Institute, SJTU, Shanghai, China
- Responsible for the appearance and structure design of a diabetes detecting instrument

## PUBLICATIONS

1) **Yu, J**. Bai, C. & Roque, R. (2019) "Programming Shouldn't be Something She Should be Afraid of": Parent's Perspectives on Young Children's Use of Coding Kits. (Submitted to CSCW 2019)
2) **Yu, J.** & Roque, R. (2019) A Review of Computational Toys and Kits for Young Children. *International Journal of Child-Computer Interaction*. DOI:https://doi.org/10.1016/j.ijcci.2019.04.001
3) **Yu, J.** & Roque, R. (2018) A Survey of Computational Kits for Young Children. *In the ACM Conference on Interaction Design and Children (IDC '18).* Trondheim, Norway. (**Child-Computer Interaction Student Best Paper Award**)
4) **Yu, J.** Ma, X. & Han, T. (2017) Usability Investigation on the Localization of Text CAPTCHAs: Take Chinese Characters as a Case Study. *Transdisciplinary Engineering: A Paradigm Shift: Proceedings of the 24th ISPE Inc. International Conference on Transdisciplinary Engineering.* Singapore.
5) **Yu, J.** Ma, X. & Han, T. (2016) Usability Comparison of Text CAPTCHAs Based on English and Chinese. *Proceedings of International Conference on Cross-Cultural Design.* Toronto, Canada.
6) Yang, Y. **Yu, J.** Cai, W. & Han, T. (2015) Comparison Research between ICT-Based Design and Traditional Design for Hearing Impaired Children. *Proceedings of the 9th Universal Access in Human-Computer Interaction Conference, LNCS 9177*. Los Angeles, CA, USA.

## PATENTS

- **Yu, J.** Ma, X. & Han, T. "A faucet with bacteria scanning function", Chinese Patent, February 2016: CN105715842A
- Yang, Y. **Yu, J.** "A Lampshade", Utility Model, January 2013: CN202691896U
- Chen, S. **Yu, J.** "Bathroom cabinet," Utility Model, January 2013: CN202681753U

## AWARDS & HONORS

- Child-Computer Interaction Best Student Paper Award, 2018
- Outstanding Graduate of Shanghai Jiao Tong University, 2017
- National Scholarship for Graduate Students, the Ministry of Education of China, 2015, 2016
- First-Class Scholarship of Academic Excellence, SJTU, 2015, 2016
- Bronze Award of the 11th Interior Design Competition of China, Chinese Interior Decoration Association, 2014
- The Yang Yongman Scholarship, ZJU, 2013
- Winner of the Innovative Electric Heater Design Competition, Chinese Industrial Design Association (Top 10 out of ~1500 pieces of work), 2012

**SERVICES**

Reviewer, *Behaviour & Information Technology*
Reviewer, *The 24th and 25th International Conference on Transdisciplinary Engineering* (TE2017, 2018)
Volunteer, *The Fourth Summer Camp of Innovative Design Elites* held by School of Media & Design of Shanghai Jiao Tong University, Summer 2015

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**SKILLS**

**Research**: Research through Design, Qualitative Research (Survey, Interview, Content analysis, Thematic analysis), Statistical analysis, Experimental design, Usability test, Eye-tracking experiments
**Design**: Product design, UX/UI design, Rhinoceros, V-ray, KeyShot, Photoshop, Adobe Illustrator
**Prototyping**: Adobe XD, Axure, Arduino, HTML, CSS3
**Programming**: Python, C++, Java

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**LANGUAGES**

English, Chinese