

# Curriculum Vitae

## PhD Candidate Min Fan

School of Interactive Arts & Technology / Simon Fraser University/ Surrey, Canada

mfan1028@gmail.com min-fan.com 604-836-1880

1703-6555 Bonsor Ave, Burnaby, B.C. V5H 3E9

## Educational Background

- **Simon Fraser University, 2012-2017 (expected)**  
Ph.D. Candidate at School of Interactive Arts & Technology
- **Centre for Digital Media (SFU,UBC, BCIT, Emily Carr), 2010-2012**  
Master of Digital Media, M.D.M.
- **Communication University of China, 2009-2012**  
Digital Media Arts, M.A.
- **Communication University of China, 2005-2009**  
Digital Media Arts, B.A (Honored).

## Professional Experience

- **Tangible, Embodied, and Child Interaction Lab, Simon Fraser University**  
2012.09-Current Interaction Designer & Research Assistant  
Developed concepts of child-centric tangible learning products and implemented hardware and software of the prototypes  
Conducted design research including administering field studies and analyzing multiple datasets using mixed methods  
Reviewed and published papers in HCI conferences including CHI, TEI, IDC, and Group
- **Centre for Digital Media**  
2010.09-2012.06 Interaction Designer & Motion Graphic Designer  
Pitched concept and designed interaction flow for an IOS location-based English learning application  
Produced an educational interactive narrative for DreamRider Productions  
Designed UI and interaction of website for Dotstudioz INC
- **Pixomondo VFX Company**  
2011.05-2011-08 VFX Coordinator (Intern)  
Ran daily (quality control) with general supervisor  
Completed process documentation and scheduling  
Maintained database while communicating with other Pixomondo facilities overseas
- **Communication University of China**  
2008.09-2010.7 Teaching Assistant  
Worked as teaching assistant for the courses of Digital Editing Arts and Digital Media Arts  
Responsible for preparing course materials and organizing class  
Teaching software (Avid & Adobe Premiere) in labs

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- The Beijing Organizing Committee for the Games of the XXIX Olympiad  
2007.05-2008.10 Video Editor and Video Director (Intern)  
Responsible for all video highlights editing work for hockey and swimming teams  
Management of video footage and assets  
Helped producers to set production guidelines

## Awards

- Graduate Fellowships, Simon Fraser University, 2017 Spring
- President's Ph.D. Scholarship, Simon Fraser University, 2016 Spring
- Travel and Minor Research Award, Simon Fraser University, 2013-2017
- Dianne Sinclair Memorial Fellowship, Centre for Digital Media, 2012
- China Scholarship Council, 2012-2016
- Outstanding Graduate of Communication University of China, 2009
- China National Scholarship, 2007-2008
- Excellent Staff Award in Beijing Organizing Committee for the Games of the XXIX Olympiad, 2008
- Excellent Team Lead in Beijing Organizing Committee for the Games of the XXIX Olympiad, 2008
- Excellent President of Student Union of Communication University of China, 2008
- Outstanding Student Volunteer Team Lead in China (Beijing) Interactional Student Animation Festival, 2008-2009
- Excellent Student Lead of Communication University of China, 2006-2009
- Best Documentary Award (*Dancing in Olympic*) in Panasonic Professional HD Video Competition, 2008
- Best Animation Nomination (*Non-profit Ad for Hepatitis B*) in China (Beijing) International Student Animation Festival, 2008
- Single-curriculum Scholarship of Communication University of China, 2006

## Research Interests and Projects<sup>1</sup>

My research interests are child-centric and tangible interaction design. My research work contributes to the interaction design for children (IDC) and tangible, embedded (embodied) interaction (TEI) communities through results from theoretical explorations, the development of child-specific tangible applications, and empirically derived design guidelines for tangible user interfaces.

- PhonoBlocks: a tangible system with dynamic colour cues and 3D tangible letters that supports the early reading acquisition for children at-risk for dyslexia (Ph.D. project)  
2014-2016, Researcher & Designer  
Provided the technical solution, iteratively designed the user interfaces and implemented the physical prototype

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<sup>1</sup> Please see [Min Fan's personal website](#) for details on eight projects.

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Designed and conducted the user studies with children at-risk for dyslexia and children who learn English as a second language to investigate effectiveness of PhonoBlocks in supporting learning to read and spell

Analyzed the data using mixed-methods approach and generalized the design guidelines based on the empirical results

- **Tactile Letters: a tangible tabletop with texture cues supported alphabetic learning for children**

2015. 05-2016.07, Researcher & Designer

Designed the proof of concept prototype based on the theories of multisensory instruction and cross-modal research

Designed the evaluation methods

- **Youtopia: a hybrid tangible digital (multi-touch) tabletop activity**

2012-2014, Research Assistant

Conducted the usability testing with children

Facilitated the user studies with children at an elementary school

Involved in the video-coding data analysis

- **NuBi: location-based English-learning IOS application (MDM pitched project)**

2012.01—2012.04, Researcher & Interaction Designer

Pitched the initial idea and concept

Designed user interfaces and interaction flow

- **DreamRider Productions, Canada (MDM industrial project)**

2011.09-2012.01, Motion Graphic Designer

Produced eight-minute motion comic animation for an educational interactive narrative

Set up video production pipeline and workflow

Scheduled and tracked animation production

- **Dotstudioz INC, Canada (MDM industrial project)**

2011.01-2011.04, Web/Graphic Designer

User Interface Design including Wireframing, Touch Points, and Navigation

Completed 3D modeling and animations for promotional materials

Designed icons and graphics for website

## Publications

2017

- **Fan, M.**, Antle, A.N., Maureen, H. Neustaedter, C. Cramer, E.S. Why Tangibility Matters: A Design Case Study of At-Risk Children Learning to Read and Spell. In *Proceedings of Conference on Human Factors in Computing Systems (CHI '17)*, ACM Press (forthcoming).

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### 2016

- **Fan, M.**, Antle, A.N. Cramer, E.S. Design Rationale: Opportunities and Recommendations for Tangible Reading Systems for Children. In *Proceedings of Conference on Interaction Design for Children (IDC '16)*, ACM Press, Manchester, UK, June 21-24, 2016, 101-112.
- **Fan, M.**, Antle, A.N. Cramer, E.S. Exploring the design space of tangible systems supported for early reading acquisition in children with dyslexia. In *Proceedings of Conference on Tangible, Embodied and Embedded Interaction (TEI'16)*, 101-112.
- Cramer, E.S., Antle, A.N., **Fan, M.** The Code of Many Colours: Evaluating the Effects of a Dynamic Colour-Coding Scheme on Children's Spelling in a Tangible Software System. In *Proceedings of Conference on Interaction Design for Children (IDC '16)*, ACM Press, Manchester, UK, June 21-24, 2016, 473-485.
- Antle, A.N., Warren, J., Matkin, B.B., **Fan, M.**, Cramer, E.S. Designing Tangibles for Children: One Day Hands-on Workshop. In *Proceedings of Conference on Tangible, Embodied and Embedded Interaction (TEI'16)*, ACM Press, Eindhoven, the Netherlands, February, 14-17, 2016, 750-752.
- Antle, A.N., Warren, J., Cramer, E.S., **Fan, M.**, Matkin, B.B. Designing Tangibles for Children: One Day Hands-on Workshop. In *Proceedings of Conference on Interaction Design for Children (IDC '16)*, ACM Press, Manchester, UK, June 21-24, 2016, 727-730.

### 2015

- **Fan, M.**, Antle, A.N. Tactile Letters: A Tangible Tabletop with Texture Cues Supporting Alphabetic Learning for Dyslexic Children. In *Proceedings of Conference on Tangible, Embodied and Embedded Interaction (TEI'15)*, ACM Press, Stanford, CA, USA, January, 16-19, 2015, 673-678.
- **Fan, M.**, Antle, A.N. Tactile Letters: A Tangible Tabletop with Texture Cues Supporting Alphabetic Learning for Dyslexic Children (Poster). Poster and Demo: in *the Conference on Tangible, Embodied and Embedded Interaction (TEI'2015)*, Stanford, CA, USA, January, 16-19, 2015.
- Antle, A.N., **Fan, M.**, Cramer, E.S. PhonoBlocks: A tangible System for Supporting Dyslexic Children Learning to Read. In *Proceedings of Conference on Tangible, Embodied and Embedded Interaction (TEI'15)*, ACM Press, Stanford, CA, USA, January, 16-19, 2015, 533-538.
- Antle, A.N., **Fan, M.**, Cramer, E.S. PhonoBlocks: A tangible System for Supporting Dyslexic Children Learning to Read(Poster). Poster: in *the Conference on Tangible, Embodied and Embedded Interaction (TEI'15)*, Stanford, CA, USA, January, 16-19, 2015.
- Cramer, E.S., Antle, A.N., **Fan, M.** Colouring the Path from Instruction to Practice: Perspectives on Software for Struggling Readers. In *Proceedings of Conference on Interaction Design for Children (IDC '15)*, ACM Press, Medford, MA, USA, June, 21-25, 2015, 331-334.
- Cramer, E.S., Antle, A.N., **Fan, M.** Colouring the Path from Instruction to Practice: Perspectives on Software for Struggling Readers. Poster: in *the Proceedings of Conference on Interaction Design for Children (IDC '15)*, Medford, MA, USA, June, 21-25, 2015.

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- Wise, A.F., Antle, A.N., Warren, J., May, A., **Fan, M.**, Macaranas, A. What kind of world do you want to live in?: Positive interdependence and collaborative processes in the land-use planning game YouTopia. In *Proceedings of Conference on Computer Supported Collaborative Learning (CSCL '15)*, ISLS Press, Gothenburg, Sweden, June 7-11, 2015 (forthcoming).

### 2014

- **Fan, M.**, Antle, A.N., Neustaedter, C., Wise, A.F. (2014). Exploring how a co-dependent tangible tool design supports collaboration in a tabletop activity. In *Proceedings of International Conference on Supporting Group (Group '14)*, ACM Press, Sanibel Island, FL, USA, November 9-12, 2014, 81-90.
- Antle, A.N., Warren, J.L., May, A., **Fan, M.**, Wise, A.F. Emergent dialogue: Eliciting values during children's collaboration with a tabletop game for change. In *Proceedings of Conference on Interaction Design for Children (IDC '14)*, ACM Press, Aarhus, Denmark, June, 17-20, 2014, 37-46.
- Antle, A.N., Warren, J.L., May, A., **Fan, M.**, Wise, A.F. Emergent Dialogue: Eliciting Values during Children's Collaboration with a Tabletop Game for Change. Poster Presentation at *GRAND 2014*, Ottawa, ON, Canada, May 14-16, 2014.

### 2013

- **Fan, M.**, Antle, A.N., Wakkary, R. Exploring Contextual Factors: Tangible Tabletop Systems for Classroom Education. Accepted to workshop presentation: From Research to Design: Challenges of Qualitative Data Representation and Interpretation in HCI. In *Proceedings of BCS HCI 2013 – The Internet of Things XXVII*, Uxbridge, UK, September 9-13, 2013.
- Antle, A.N., Wise, A.F., Willis, A., Tan, P. Nowroozi, S., Eckersley, R., **Fan, M.**, Warren, J. Youtopia: A collaborative, tangible, multi-touch, sustainability learning activity. In *Proceedings of Conference on Interaction Design for Children (IDC '13)*, ACM Press, New York City, USA, June 24 – 27, 2013, 565-568.
- Antle, A.N., Wise, A.F., Willis, A., Tan, P. Nowroozi, S., Eckersley, R., **Fan, M.**, Warren, J. Youtopia: A Collaborative, Tangible, Multi-touch, Sustainability Learning Activity(Poster). Demo, Poster and Madness presentation at the *International Conference on Interaction Design for Children (IDC '13)*, ACM Press, New York City, USA, June 24-27, 2013.
- Wise, A.F., Willis, A., Tan, P. Nowroozi, S., Eckersley, R., **Fan, M.**, Warren, J. Youtopia: A Collaborative, Tangible, Multi-touch, Sustainability Learning Activity. Poster and Demo: *GRAND 2013*. Toronto, Canada, May, 2013, 13-17.

## Transferable Skills

- Design Research: user study, usability testing, qualitative, quantitative, mixed-methods research, field study, interview, focus group, survey, observation, expert review, heuristic evaluation, video coding (Noldus)
- Design: sketching, wireframing, and graphic design (Illustrator, Photoshop, InDesign & Sketch), storyboard, prototyping, interaction design, product design, UX
- Video production: production pipelines, editing (Adobe Premiere), composition and VFX (Affect Effects & Nuke),
- Programming: processing and html