Ryo Suzuki

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DLC 170, University of Colorado Boulder, Boulder CO 80302

EDUCATION

Ph.D student in Computer Science, University of Colorado Boulder *August 2015 - Present*
Advisor: Daniel Leithinger and Mark D. Gross
Thesis Committee: Hiroshi Ishii, Takeo Igarashi, Tom Yeh

M.A, University of Tokyo *March 2013*
Advisor: Koji Yatani and Kandori Michihiro

B.Eng, Tokyo Institute of Technology *March 2011*
GPA: 3.9

RESEARCH EXPERIENCE

University of Colorado Boulder, THING Lab *August 2015 - Present*
Daniel Leithinger, Mark D. Gross, and Tom Yeh

Adobe Research, Creative Intelligence Lab *May 2019 - August 2019*
Rubaiat Habib, Li-Yi Wei, Stephen Diverdi, Danny Kaufman

University of Tokyo, JST ERATO *December 2017 - October 2018*
Yasuaki Kakehi and Yoshihiro Kawahara

UC Berkeley, BiD Group *May 2016 - August 2016*
Bjoern Hartmann

Stanford University, HCI Group *May 2015 - August 2015*
Michael S. Bernstein

University of Tokyo, IIS-Lab *September 2014 - May 2015*
Koji Yatani

AIST, Media Interaction Group *January 2015 - March 2015*
Jun Kato

PUBLICATIONS

Ryo Suzuki, Ryosuke Nakayama, Dan Liu, Yasuaki Kakehi, Mark D. Gross, Daniel Leithinger, *"LiftTiles: Constructive Building Blocks for Prototyping Room-scale Shape-changing Interfaces."*, (TEI'20, acceptance rate: 28%)

Ryo Suzuki, Clement Zheng, Yasuaki Kakehi, Tom Yeh, Ellen Do, Mark D. Gross, Daniel Leithinger, *"ShapeBots: Shape-changing Swarm Robots."*, Proceedings of the ACM Symposium on User Interface Software and Technology. ACM, 2019. (UIST'19, acceptance rate: 24%)

Ryo Suzuki*, Ryosuke Nakayama*, Satoshi Nakamaru, Ryuma Niiyama, Yoshihiro Kawahara, Yasuaki Kakehi, (*equally contributed) *"MorphIO: Entirely Soft Sensing and Actuation Modules for Programming Shape Changes through Tangible Interaction."*, Proceedings of The ACM Conference on Designing Interactive Systems. ACM, 2018. (DIS'19, acceptance rate: 25%, **Best Paper Award: Top 1%**)

Ryo Suzuki, Junichi Yamaoka, Daniel Leithinger, Tom Yeh, Mark D. Gross, Yoshihiro Kawahara, Yasuaki Kakehi, *"Dynablock: Dynamic 3D Printing for Instant and Reconstructable Shape Formation."*,

Proceedings of the ACM Symposium on User Interface Software and Technology. ACM, 2018. (UIST'18, acceptance rate: 20%)

Ryo Suzuki, Koji Yatani, Mark D. Gross, Tom Yeh, *"Tabby: Explorable Design for 3D Printing Textures."*, Proceedings of the Pacific Conference on Computer Graphics and Applications, 2018 (Pacific Graphics'18, acceptance rate: 26%)

Ryo Suzuki, Jun Kato, Mark D. Gross, Tom Yeh, *"Reactile: Programming Swarm User Interfaces through Direct Physical Manipulation."*, Proceedings of the CHI Conference on Human Factors in Computing Systems. ACM, 2018. (CHI'18, acceptance rate: 25%)

Hyunjoo Oh, Tung D. Ta, **Ryo Suzuki**, Mark D. Gross, Yoshihiro Kawahara, Lining Yao, *"PEP (3D Printed Electronic Papercrafts): An Integrated Approach for 3D Sculpting Paper-based Electronic Devices."*, Proceedings of the CHI Conference on Human Factors in Computing Systems. ACM, 2018. (CHI'18, acceptance rate: 25%)

Ryo Suzuki, Abigale Stangl, Mark D Gross, Tom Yeh, *"FluxMarker: Enhancing Tactile Graphics with Dynamic Tactile Markers."*, Proceedings of the International ACM SIGACCESS Conference on Computers and Accessibility. ACM, 2017. (ASSETS'17, acceptance rate: 26%)

Ryo Suzuki, Gustavo Soares, Andrew Head, Elena Glassman, Ruan Reis, Melina Mongiovi, Loris D'Antoni, Bjoern Hartmann, *"TraceDiff: Debugging Unexpected Code Behavior Using Trace Divergences."*, Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing. IEEE, 2017. (VL/HCC'17, acceptance rate: 29%)

Andrew Head, Elena Glassman, Gustavo Soares, **Ryo Suzuki**, Lucas Figueredo, Loris D'Antoni, Bjoern Hartmann, *"Writing Reusable Code Feedback at Scale with Mixed-Initiative Program Synthesis."*, Proceedings of the ACM Conference on Learning at Scale. ACM, 2017. (L@S'17, acceptance rate: 22%)

Reudismam Rolim, Gustavo Soares, Loris D'Antoni, Oleksandr Polozov, Sumit Gulwani, Rohit Gheyi, **Ryo Suzuki**, Bjoern Hartmann, *"Learning Syntactic Program Transformations from Examples."*, Proceedings of the International Conference on Software Engineering. IEEE, 2017. (ICSE'17, acceptance rate: 19%)

Ryo Suzuki, Niloufar Salehi, Michelle S. Lam, Juan C. Marroquin, Michael S. Bernstein, *"Atelier: Repurposing Expert Crowdsourcing Tasks as Micro-internships."*, Proceedings of the CHI Conference on Human Factors in Computing Systems. ACM, 2016. (CHI'16, acceptance rate: 23%)

POSTERS, DEMOS, AND WORKSHOP PAPERS

Ryo Suzuki, *"Collective Shape-changing Interfaces."*, Doctoral Consortium for the Annual ACM Symposium on User Interface Software and Technology. ACM, 2019. (UIST'19 Doctoral Consortium)

Ryo Suzuki, Ryosuke Nakayama, Dan Liu, Yasuaki Kakehi, Mark D. Gross, Daniel Leithinger, *"LiftTiles: Modular and Reconfigurable Room-scale Shape Displays through Retractable Inflatable Actuators."*, Adjunct Proceedings of the Annual ACM Symposium on User Interface Software and Technology. ACM, 2019. (UIST'19 Poster)

Ryo Suzuki, Gustavo Soares, Elena Glassman, Andrew Head, Loris D 'Antoni, Bjoern Hartmann, *"Exploring the Design Space of Automatically Synthesized Hints for Introductory Programming Assignments."*, Proceedings of the CHI Conference on Human Factors in Computing Systems. ACM, 2017. (CHI'17 Late-Breaking Work)

Stanford Crowd Research Collective (For the full author list, please see the publication), *"Daemo: A Self-Governed Crowdsourcing Marketplace."*, Adjunct Proceedings of the Annual ACM Symposium on User Interface Software and Technology. ACM, 2015. (UIST'15 Poster)

Ryo Suzuki, *"Toward a Community Enhanced Programming Education."*, Proceedings of the CHI Conference on Human Factors in Computing Systems. ACM, 2015. (CHI'15 Workshop)

Ryo Suzuki, *"Interactive and Collaborative Source Code Annotation."*, Proceedings of the International Conference on Software Engineering. IEEE, 2015. (ICSE'15 Poster)

Ryo Suzuki, *"Network Thresholds and Multiple Equilibria in the Diffusion of Content-based Platforms."*, Proceedings of the International Conference on Web and Internet Economics. Springer, 2014. (WINE'14 Poster)

AWARDS AND HONORS

Innovation Award from Japanese Government (MIC) $30,000 *October 2019*
JST ACT-I Funding for Young Scholars (Mentor: Takeo Igarashi) $30,000 *October 2018*
Leave a Nest Fellowship $5,000 *October 2018*
Nakajima Foundation Scholarship $120,000 and 2 years tuition coverage *November 2014*
KAKENHI Grants-in-Aid for Scientific Research $40,000 *April 2013*
JSPS Research Fellow DC1 $72,000 stipend *April 2013*
JASSO Fellow (Total Exemption for Outstanding Students) $20,000 *March 2013*
Tohso Foundation Scholorship $3,600 *April 2010*

SIGCHI UIST DC Travel Grant *October 2019*
CU Boulder Travel Grant *October 2019*
CU Boulder Travel Grant *October 2018*
CU Boulder Travel Grant *April 2018*
CU Boulder Travel Grant *October 2017*
CU Boulder Travel Grant *April 2017*
CU Boulder Travel Grant *October 2016*

Business Model Competition Japan 2014 Microsoft Award *February 2014*
Tech Crunch Disrupt Tokyo 2013 Finalist *November 2013*
1st Prize Winner of University of Tokyo Entrepreneur Dojo *October 2012*

SELECTED MEDIA COVERAGE

Hackster.io, *"Swarming Robots Can Change Their Configuration to Handle Different Tasks"* *October 2019*
TechXplore, *"A Swarm of Shape-shifting Robots that Visually Display Data"* *September 2019*
Gadgetify, *"ShapeBots: Shape Changing Swarm Robots"* *September 2019*
3DPrint.com, *"Dynablock: 3D Prints That Assemble and Disassemble in Seconds"* *October 2018*
Hackster.io, *"The Dynamic 3D Printing That Assembles and Disassembles Objects in Seconds"* *October 2018*
Arduino Blog, *"Create shapes over and over with the Dynablock 3D Printer"* *October 2018*
World Business Satellite (Japanese TV), *"Repeatable 3D Printer"* *October 2018*
Nikkei, *"Modeling 3D Objects with Magnet-Embedded Blocks"* *October 2018*
Wired, *It's Not Just Robots: Skilled Jobs Are Going to Meatware* *June 2016*

TEACHING EXPERIENCE

Teaching Assistant at University of Colorado Boulder *August 2019 - January 2019*
Fundamentals of HCI for Prof. Shaun Kane

Teaching Assistant at University of Colorado Boulder *January 2017 - May 2017*
Soft Robotics for Prof. Mark D. Gross

Teaching Assistant at University of Tokyo *October 2012 - February 2013*
Game and Network Theory (Graduate) for Prof. Michihiro Kandori

Teaching Assistant at International Christian University *October 2012 - February 2013*
Statistics (Undergraduate) for Prof. Takuya Kaneko

Teaching Assistant at University of Tokyo *April 2012 - August 2012*
Mathematics II (Graduate) for Prof. Kazuya Kamiya

TECHNICAL SKILLS

Programming Languages	Node.js/JavaScript, C/C++, Python, Ruby, Objective-C
Development Framework	OpenGL, WebGL, OpenCV, Tensorflow, React
Tools	OnShape, Solidworks, Adobe Illustrator, Adobe After Effects
Electronics	Altium Designer, Eagle