

Evan Strasnick

**Research Scientist, AR/VR Interaction
Facebook Reality Labs
Redmond, WA**

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Research Interests

AR/VR, Interaction Design, Sensing, Design Tools, Maker Tools, Circuit Design and Debugging, Haptics, Shape Change, Wearable Computing, Gaze Interaction, Robotics, Sensory Substitution, Brain-Computer Interface

Education

Stanford University

Ph.D. in Computer Science

2015 – 2020

Co-Advisors: Prof. Maneesh Agrawala (Computer Science)
Prof. Sean Follmer (Mechanical Engineering)

Princeton University

B.S.E. in Computer Science

2011 – 2015

Employment

Facebook Reality Labs – Redmond, WA

2020 –

Research Scientist, AR/VR Interaction

Microsoft Research – Redmond, WA

2017

Research Intern

Microsoft Corporation – Redmond, WA

2014

Software Development Intern

Lua Technologies – New York, NY

2013

Software Development Intern

Eastern Virginia Medical School – Norfolk, VA

2010

Research Associate

Awards and Honors

2016 **National Defense Science and Engineering Graduate Fellowship**
NSF Graduate Research Fellowship (Declined)

2015 **Stanford School of Engineering Fellowship**
Phi Beta Kappa Honor Society

2014 **Accenture Prize**
Best Poster Award for Undergrad. Research in Computer Science
Tau Beta Pi Engineering Honor Society
Sigma Xi Scientific Research Honor Society

2013 **Shapiro Prize for Academic Excellence**

Publications

- [1] Strasnick, E., Agrawala, M. and Follmer, S. "Coupling Simulation and Hardware for Interactive Circuit Debugging". 2021. *CHI 2021: SIGCHI Conference on Human Factors in Computing Systems*. **Best Paper**.
- [2] Strasnick, E., Follmer, S., and Agrawala, M. "Pinpoint: A PCB Debugging Pipeline Using Interruptible Routing and Instrumentation". 2019. *CHI 2019: SIGCHI Conference on Human Factors in Computing Systems*.
- [3] Strasnick, E., Holz, C., Ofek, E., Sinclair, M., and Benko, H. "Haptic Links: Bimanual Haptics for Virtual Reality Using Variable Stiffness Actuation". 2018. *CHI 2018: SIGCHI Conference on Human Factors in Computing Systems*.
- [4] Sinclair, M., Ofek, E., Holz, C., Choi, I., Whitmire, E., Strasnick, E., and Benko, H. "Three Haptic Shape-Feedback Controllers for Virtual Reality". 2018. *2018 IEEE Conference on Virtual Reality and 3D User Interfaces (VR)*.
- [5] Strasnick, E., Agrawala, M., and Follmer, S. "Scanalog: Interactive Design and Debugging of Analog Circuits with Programmable Hardware". 2017. *Proceedings of UIST 2017: ACM Symposium on User Interface Software and Technology*. **Best Paper Honorable Mention**.
- [6] Strasnick, E., Yang, J., Tanner, K., Olwal, A., and Follmer, S. "shiftIO: Reconfigurable Tactile Elements for Dynamic Affordances and Mobile Interaction". 2017. *CHI 2017: SIGCHI Conference on Human Factors in Computing Systems*. **Best Paper Honorable Mention**.
- [7] Strasnick, E., Cauchard, J., and Landay, J. "BrushTouch: Exploring an Alternative Tactile Method for Wearable Haptics". 2017. *CHI 2017: SIGCHI Conference on Human Factors in Computing Systems*.
- [8] Strasnick, E. and Follmer, S. "Applications of Switchable Permanent Magnetic Actuators in Shape Change and Tactile Display". 2016. *Adjunct Proceedings of UIST 2016: ACM Symposium on User Interface Software and Technology*.

Posters

- [1] Strasnick, E. and Rusinkiewicz, S. "Candidate Eyegaze and Manual Input Methods for an Improved User Experience in Interactive Image Segmentation". 2014. Princeton University. **Best Poster Award**.

Workshops

- [2] Strasnick, E. "Circuit Design Tools for Exploratory Understanding". 2019. *Adjunct Proceedings of UIST 2019: ACM Symposium on User Interface Software and Technology*. Doctoral Symposium.

Other Projects

- [1] "Maestro: Encouraging Engagement with Assistive Technology through a Minimally Disruptive Haptic Volume Regulation Aid". 2017.
- [2] "Pianolens: An Augmented Reality Interface for Piano Instruction". 2016.
- [3] "HarmonEyes: A 3D Soundscape Explored by Ear". 2015.
- [4] "BlueCane: A Haptic Augmentation to the Standard Cane, Providing Discreet Navigational Guidance to the Blind via Bluetooth Link". 2014.

Invited Talks

- [1] *Circuit Design Tools for Exploratory Understanding*. Palo Alto Research Center (PARC). Palo Alto, CA. November 22, 2019.
- [2] *Circuit Design Tools for Exploratory Understanding*. Sketching in Hardware 2019. Detroit, MI. September 29, 2019.

Teaching

CS 347: Human-Computer Interaction Research

ME 216M: Introduction to the Design of Smart Products

Reviewing

CHI: 2017*, 2018, 2019, 2020*

Eurohaptics: 2018

TEI: 2018, 2019

UIST: 2018, 2019, 2020*

WHC: 2017

JMRR: 2019

*Outstanding Review Awarded

Other Professional Activities

PhD Admissions Committee: Stanford University. 2019, 2020.

Brown Institute for Media Innovation Base Camp: Columbia University. 2015.