

## Research summary

**Aims**—to develop and evaluate tangible devices that help people self-regulate their use of smartphones and laptops.

## Research positions

2021 — 2022

### Pre-Doctoral Researcher

Dept. of Computer Science, University of Maryland, College Park

## Education

2022 — present

### PhD in Computer Science, University of Chicago

Supervisor: [Dr. Ken Nakagaki](#)

Thesis: in-progress

2019 — 2021

### MSc in Human-Computer Interaction, University of Maryland, College Park

Supervisor: [Dr. Huaishu Peng](#)

Thesis: Enabling On-body Computing Using a Track Based Wearable

2014 — 2018

### BTech in Electronics & Communication Engineering, PES University

Supervisor: Suresh Padmanabhan

Thesis: Realtime On-chip Wireless Waveform Monitoring

## Major grants and funding

2024

**Arts, Science + Culture Graduate Collaboration Grant** (\$3000), University of Chicago + School of the Art Institute of Chicago

2022

**Crerar Fellowship** (\$5000), Dept. of Computer Science, University of Chicago

2022

**Daniels Fellowship** (\$5000), Dept. of Computer Science, University of Chicago

2019 — 2021

**Full tuition remission** (~\$56k), University of Maryland, College Park

## Awards & honors

2024

**Special Recognition for Outstanding Reviews**, DIS 2023, CHI 2024

2023

**core77 Design Awards 2023, Tools Award for Fibercuit**

2020

**Nominated for Graduate Assistant of the Year (top 2%)**, University of Maryland, College Park

2016

**Zonal Winner, National Robotics Championship**, IIT Bombay, India

# Publications

## Conference publications (fully reviewed, archival)

In computer science, top-tier conferences (<30% acceptance rate) are as, or more impactful than journals, see <https://doi.org/fjgt2h>

2024	C6	<b>SHAPE-IT: Exploring Text-to-Shape-Display for Generative Shape-Changing Behaviors with LLMs</b> <a href="#">[url]</a> W. Qian, C. Gao, A. Sathya, R. Suzuki, K. Nakagaki The 37th Annual ACM Symposium on User Interface Software and Technology (UIST '24)
	C5	<b>CARDinality: Interactive Card-shaped Robots with Locomotion and Haptics using Vibration</b> <a href="#">[url]</a> A. Retnanto*, E. Faracci*, A. Sathya*, Y. Hung, K. Nakagaki The 37th Annual ACM Symposium on User Interface Software and Technology (UIST '24) [*equal contribution]
	C4	<b>Attention Receipts: Utilizing the Materiality of Receipts to Improve Screen-time Reflection on YouTube</b> <a href="#">[url]</a> A. Sathya, K. Nakagaki Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '24)
2022	C3	<b>Fibercuit: Prototyping High-Resolution Flexible and Kirigami Circuits with a Fiber Laser Engraver</b> <a href="#">[url]</a> Z. Yan*, A. Sathya*, S. Yusuf, J. Lien, H. Peng The 35th Annual ACM Symposium on User Interface Software and Technology (UIST '22) [*equal contribution]  core77 Design Awards 2023 - Tools Award
2018	C2	<b>Realtime On-chip Wireless Waveform Monitoring</b> <a href="#">[url]</a> A. Sathya, S. Balaji, A. Gupta, S. Padmanabhan IEEE 2018 International Conference on Advances in Computing, Communications and Informatics (ICACCI '18)
2017	C1	<b>Visual Positioning System for Automated Indoor/Outdoor navigation</b> <a href="#">[url]</a> A. Sathya, A. Goel, S. Padmanabhan IEEE 2017 Region 10 Conference (TENCON '17)

## Journal articles (fully reviewed, archival)

2022	J1	<b>Calico: Track Based Interactive and Relocatable Wearables with Fast, Reliable, and Precise Locomotion</b> <a href="#">[url]</a> A. Sathya, J. Li, T. Rahman, G. Gao, H. Peng Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (UbiComp '22)
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## Other Contributions (lightly reviewed, archival)

2024	A3	<b>Game Jam with CARDinality: A Case Study of Exploring Play-based Interactive Applications</b> <a href="#">[url]</a> E. Faracci, A. Retnanto, A. Sathya, A. Sparrow, K. Nakagaki The 37th Annual ACM Symposium on User Interface Software and Technology (UIST Adjunct '24) [*equal contribution]
2022	A2	<b>Demonstration of Fibercuit: Techniques to Prototype High-Resolution Flexible and Kirigami Circuits with a Fiber Laser Engraver</b> <a href="#">[url]</a> Z. Yan*, A. Sathya*, S. Yusuf, J. Lien, H. Peng The 35th Annual ACM Symposium on User Interface Software and Technology (UIST '22) [*equal contribution] 🏆 Best Demo (People's Choice)
2021	A1	<b>Towards On-the-wall Tangible Interaction: Using Walls as Interactive, Dynamic, and Responsive User Interface</b> <a href="#">[url]</a> Z. Yan, A. Sathya, P. Carvalho, Y. Hu, A. Li, H. Peng Extended Abstracts of the 2021 CHI Conference on Human Factors in Computing Systems (CHI EA '21)

## Research dissemination

### Press

2025	<a href="#">University of Chicago Magazine</a> , 'Fit to print' - article about <i>Attention Receipts</i>
2024	<a href="#">Hackster.io</a> , 'A Game Changer' - article about <i>Cardinality</i>
	<a href="#">inews UK</a> , No books, TV or internet: why I'm all in on a hardcore self-help bible - opinion piece citing <i>Attention Receipts</i>
	<a href="#">404 Media</a> , Would You Waste Less of Your Life Online If You Got Daily 'Attention Receipts'?
2023	<a href="#">Adafruit Blog</a> , Calico: A Wearable Robotic Assistant #WearableWednesday
	<a href="#">Indian Express</a> , This is Calico, a tiny robot that can be your dance instructor, workout tracker, and more
	<a href="#">Communications of the ACM</a> , A Wearable Robotic Assistant That's All Over You
	<a href="#">IEEE Spectrum</a> , A Wearable Robotic Assistant That's All Over You
	<a href="#">The Verge</a> , Wearable robot, why not?
2022	<a href="#">Maryland Today</a> , Where-able sensors
	<a href="#">all3dp</a> , Fibercuit Makes Custom Flexible Circuits With a Fiber Laser Engraver
	<a href="#">Hackster.io</a> , Fibercuit Laser-Cuts Prototype PCBs and Forms 3D Kirigami Objects
	<a href="#">Hackaday</a> , Fiber Laser Your Way to Flexible PCB Success
	<a href="#">Hackaday</a> , The Calico Wearable Rides the Rails

[Hackster.io](#), How to “Train” Your Sensor

## Podcasts & Interviews

2024

[CBC Radio](#), Interviewed on CBC Radio’s ‘As It Happens’ - a Canada-wide evening news show - about *Attention Receipts*

[Put on Your Best...Robot](#), Interviewed on Over Coffee about *Calico*

2022

[Huaishu Peng, Anup Sathya, Zeyu Yan // Hackster Café](#), Interviewed on Hackster Café about *Calico*

## Invited Talks

*All first-authored conference publications listed above were also presented as talks at their respective conferences and are not listed again in this section.*

2025 T1

**University of British Columbia, [Advanced Methods for Human-Computer Interaction](#); Intentional HCI - Designing for Intentional Technology Use**, Dept. of Computer Science  
Utilizing the Materiality of Receipts to Improve Screen-Time Reflection (and more)

## Teaching experience

2024

**Teaching Assistant, A Practice in Art & Technology (Spring 2024)**, University of Chicago, Department of Computer Science  
Instructor: Ken Nakagaki

2023

**Teaching Assistant, Intro to Human-Computer Interaction (Fall 2023)**, University of Chicago, Department of Computer Science  
Instructor: Ken Nakagaki

2022

**Teaching Assistant, Actuated User Interfaces and Technologies (Winter 2022)**, University of Chicago, Department of Computer Science  
Instructor: Ken Nakagaki

## Personal skills & volunteering

2015 — 2017

**President and Board Member**, Youth Development Programme, Bangalore  
Led a team of 7 to manage over 35 members. Engaged with ~200 volunteers and participants over the course of 2 years to successfully execute ~30 events. Chosen to represent India at D-SEE Manila, Philippines – a project funded by the EU.

## Service

2022 — present

**Reviewer** DIS 2023, CHI 2023, DIS 2024, CHI 2024, CHI 2025