

July 1, 2022

An RSS 2022  
Workshop



# MIND THE GAP

Opportunities and Challenges in the Transition  
Between Research and Industry

# Organizers and PC



**Brian Plancher**  
Assistant Professor  
*Barnard College, Columbia University*  
Associate  
*Harvard University*



**Sarah Tang**  
Staff Software Engineer, Planning  
*Waymo*



**Sabrina M. Neuman**  
Postdoctoral Fellow  
*Harvard University*



**Vijay Janapa Reddi**  
Associate Professor  
*Harvard University*

A large red circular graphic with a thick border, partially open at the top and bottom. A dark blue horizontal bar is centered across the circle, containing the text "MIND THE GAP" in white, bold, sans-serif font.

**MIND THE GAP**

Opportunities and Challenges in the Transition  
Between Research and Industry

## Program Committee

**Sherry Chen**  
*Chef Robotics, Inc*

**Radhika Ghosal**  
*Harvard University*

**Lev Grossman**  
*Berkshire Grey*

**Jason Jabbour**  
*University of Virginia / Harvard University*

**Nigamaa Nayakanti**  
*Waymo*

**Krithika Swaminathan**  
*Harvard University*

# Purpose of this Workshop

We also hope that this workshop will lead to discussions around:

- Retrospectives on Deployments and Running Algorithms at Scale
- Integration of Algorithms and Hardware
- Surprising Real-World Constraints, Pitfalls, and Corner Cases (& ways to avoid them)
- How Users Impact Design Decisions
- The Biggest Challenges Facing Industry over the Next Decade
- Ways for Industry and Academia to Collaborate
- Main Gaps in Academic Research that need to be “Filled In” for Industry Use

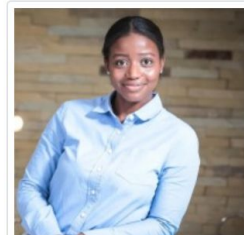
# Speakers



**Vivian Chu**  
Co-Founder and CEO  
*Diligent Robotics*



**Kristen Holtz**  
Head of Tracking & Cinematics  
*Skydio*



**Vuyo Makhuvha**  
Head of Strategy and Growth  
*August Robotics*



**Sadra Sadraddini**  
Principal Robotics Engineer  
*Dexai Robotics*



**Zack Jackowski**  
Chief Engineer - Spot  
*Boston Dynamics*



**Shaoshan Liu**  
Founder and Chairman  
*PerceptIn*



**Collin Otis**  
Head of Perception  
*Kodiak Robotics*

## Plus Three Lightning Talks:

Lessons Learned from Large-Scale Mobile Robot Deployments in Warehouse Environments

Can you pick that? Problems with Vision for Robotic Pick-and-Place Applications

RealAIGym: Education and Research Platform for Studying Athletic Intelligence

# Schedule

Time	Topic
9:00-9:15	Welcome and Agenda by the Organizers
9:15-9:55	Vuyo Makhuvha - August Robtoics
9:55-10:35	Vivian Chu - Diligent Robotics
10:35-10:50	Break
10:50-11:30	Shaoshan Liu - PerceptIn
11:30-12:00	Lighting Talks on Accepted Abstracts <ul style="list-style-type: none"><li>• Lessons Learned from Large-Scale Mobile Robot Deployments in Warehouse Environments   <a href="#">PDF</a></li><li>• Can you pick that? Problems with Vision for Robotic Pick-and-Place Applications   <a href="#">PDF</a></li><li>• RealAIGym: Education and Research Platform for Studying Athletic Intelligence   <a href="#">PDF</a></li></ul>
12:00-12:30	Lighting Talk Q&A Breakouts
12:30-2:00	Lunch Break
2:00-2:40	Kristen Holtz - Skydio
2:40-3:20	Zack Jackowski - Boston Dynamics
3:20-3:35	Break
3:35-4:05	Sadra Sadraddini - Dexai Robotics
4:05-4:45	Collin Otis - Kodiak Robotics
4:45-5:00	Workshop Closing by the Organizers

# Logistics

We will post everything on our website: <https://realworldrobots.github.io/>

- Recorded Videos, Slides, etc. (it may take a week or so to get that all up)

# Logistics

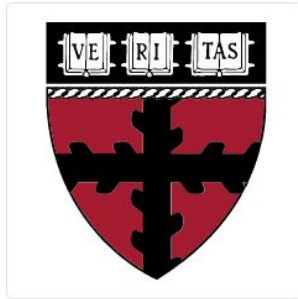
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**Questions:** each talk will be ~30 minutes followed by ~10 minutes of Q&A

- In person: raise your hand
- Online: type your questions into the chat
- We will alternate between in person and online questions!

# Thanks to our Supporters



Harvard John A. Paulson School of  
Engineering and Applied Sciences



Barnard College, Columbia University



Waymo



IEEE Entrepreneurship



Shameless Plug

[bit.ly/Gender-in-Robotics](https://bit.ly/Gender-in-Robotics)

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robotics  
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