

1 WHAT I WORK ON



AI MEMORY SYSTEMS

Long-term personalized memory for AI assistants, memory abstraction, retrieval, and user-centered personalization.



UBIQUITOUS PHYSICAL AI

Robots and embodied agents that understand people, context, environment, and safety.



PRIVACY-CENTRIC AI

Building systems that personalize without exposing sensitive information.

IDENTITY & TRUST

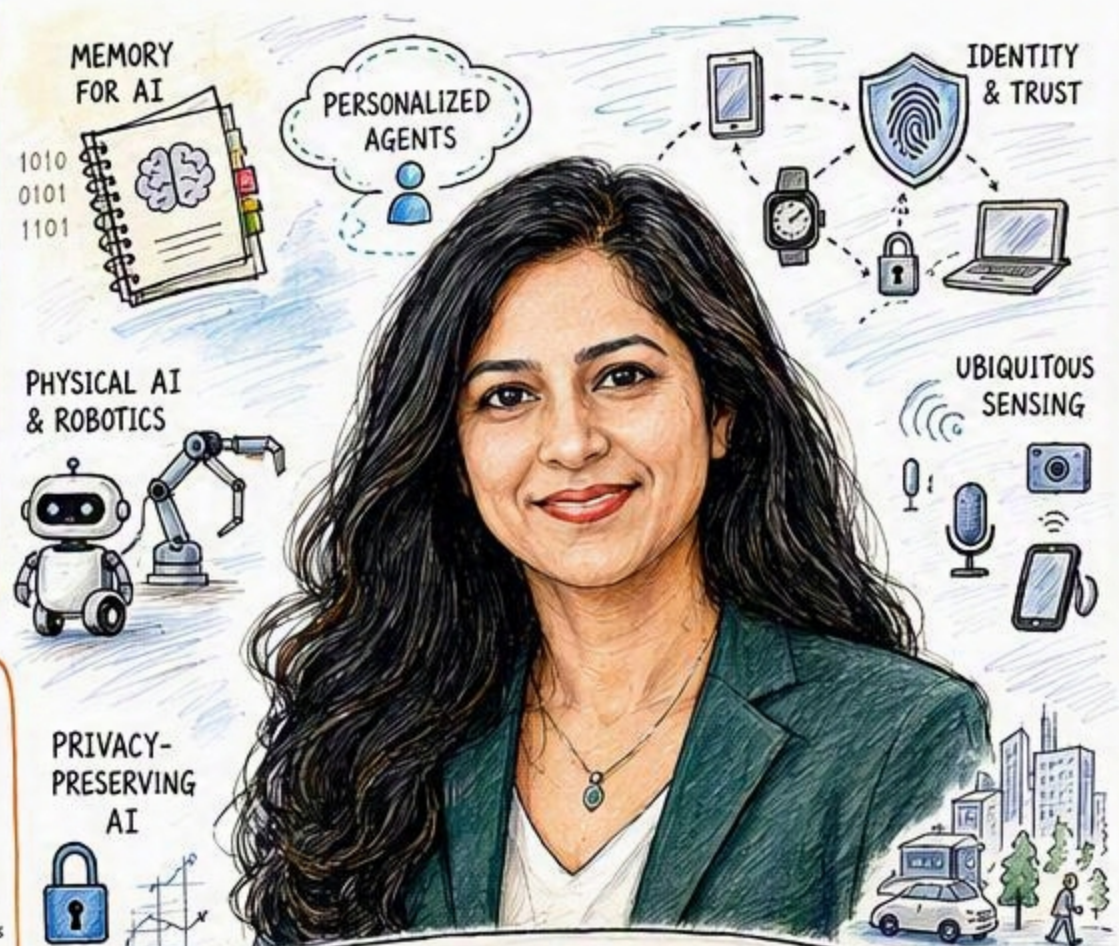
Persistent identity across devices, privacy-preserving authentication, ambient identity, zero-trust mechanisms.

INTELLIGENT SENSING SYSTEMS

Speech, vision, wearables, RF sensing, environmental sensing, multimodal understanding.

AMBIENT INTELLIGENCE

Making memory, identity, access, and agency available everywhere rather than on a single device.



Vaishnavi Ranganathan
Principal Researcher
Microsoft Research

Building the trusted computational fabric for the Agentic Century

COMPUTING THAT DISAPPEARS INTO LIFE

2 HOW I THINK



START WITH PEOPLE

Technology should adapt to humans rather than requiring humans to adapt to it.



BUILD + MEASURE

Prototype ambitious ideas and validate through rigorous evaluation.



THINK IN SYSTEMS

Connect sensing, AI, identity, memory, and interaction as one integrated ecosystem.



PRIVACY BY DESIGN

Trust must be engineered from the beginning.



ITERATE IN THE REAL WORLD

The hardest problems emerge outside laboratory settings.

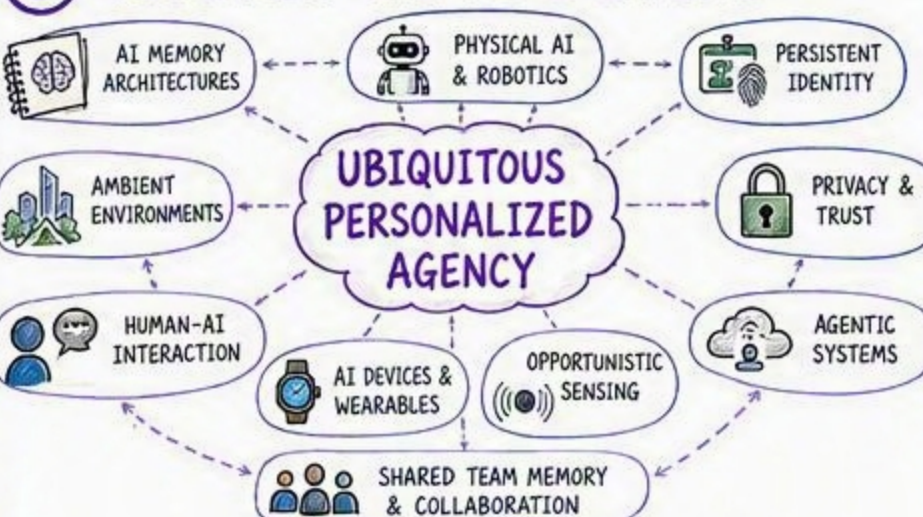


RESEARCH TO IMPACT

Transform ideas into platforms, products, and entirely new experiences.

Curiosity, rigor, empathy, and persistence drive everything I do.

3 RESEARCH THEMES I EXPLORE



6 OUTSIDE THE WHITEBOARD



International research collaborations



Reading about tech futures



Long conversations about computing



Mentorship and community building



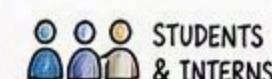
Visual storytelling and communicating ideas



Family, travel and exploration

I recharge by learning, exploring, and spending time with people I love.

4 PEOPLE & COMMUNITY



STUDENTS & INTERNS
Mentoring and learning together.

CROSS-DISCIPLINARY COLLABORATIONS
Research, product, engineering, design.



ACADEMIC COMMUNITY

CHI, UbiComp, EMNLP, Mobile Systems, AI communities.



MICROSOFT ECOSYSTEM

MSR, Applied Sciences, Product Groups, Azure and Devices teams.

GROWING IDEAS BY GROWING PEOPLE



GLOBAL NETWORK

Collaborating across the world to solve big problems.



INCLUSIVE & SUPPORTIVE CULTURE
Empathy, respect, and psychological safety unlock the best ideas.

People, trust, and shared purpose make the impossible possible.

5 THINGS I'M KNOWN FOR

Connecting sensing systems with human needs

Bridging research and product incubation

Turning emerging technologies into research platforms

Building privacy-preserving intelligent systems

Creating ambitious long-term visions

Mentoring researchers and interns

Seeing identity, memory and trust as fundamental computing primitives



Aspire big. Work deeply. Make impact.

7 WHAT EXCITES ME



- ★ The Agentic Century
- ★ AI that remembers responsibly
- ★ Identity that is ubiquitous but private
- ★ Physical AI that safely augments people
- ★ Memory architectures for personalized agents
- ★ Computing beyond screens
- ★ Extending Weiser's vision of ubiquitous computing
- ★ Building a trusted computational fabric centered on people



CURIOUS



SYSTEMS THINKER



PRIVACY-CENTRIC



COLLABORATIVE



MENTOR



BUILDER



VISION-DRIVEN

"The best systems are the ones we understand deeply enough to earn people's trust—and use to empower them in their everyday lives."