

# From grad student to TIME-recognized global impact

## Bhavana Reddy Pasula contributed to SolarSPELL, a solar-powered library named one of TIME's Best Inventions

By Kelly deVos, ASU News  
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**Editor's note:** This story is part of a series of profiles of notable [spring 2026 graduates](#).

Bhavana Reddy Pasula didn't set out to work on one of the most celebrated humanitarian technologies of the year. She was a graduate student trying to understand how data could make an impact.

"I was always this kid who was very curious," she says. "Once I found data science, I just thought, 'This is it.'"

That instinct would eventually land her on the team behind [SolarSPELL](#), a solar-powered digital library system designed to operate completely offline. No Wi-Fi. No infrastructure. Just a rugged, backpack-sized device packed with curated knowledge, including health guides, agricultural training and STEM lessons. Co-developed by global information literacy advocate [Laura Hosman](#), an associate professor in the [School for the Future of Innovation in Society](#), the device is designed to distill and deliver information to some of the most remote communities in the world.

This spring, as Pasula graduates with a master's in [data science, analytics and engineering](#) from the [School of Computing and Augmented Intelligence](#), part of the [Ira A. Fulton Schools of Engineering](#) at Arizona State University, Pasula has already done more than study innovative technology. She has helped improve a project with global reach.

In 2025, SolarSPELL was named one of [TIME's Best Inventions](#), recognized for its global social impact.

### Lost in translation (found in data)

Pasula arrived at ASU from Hyderabad, India, already committed to data science. Her undergraduate degree in computer science with a data science minor had set the trajectory early. But ASU sharpened it, particularly in unexpected places.

A data visualization course with [Chris Bryan](#), a Fulton Schools assistant professor of computer science and engineering, gave her a fresh perspective.

“The class was very different. It changed how I think about data,” Pasula says. “It wasn’t just about charts or dashboards. It was about storytelling through data, translating complexity into something more human.”

That translation would become central to her work.

By the time she joined the SolarSPELL team in summer 2025, she wasn’t writing models or building pipelines. Pasula was curating educational materials for schools in east Africa, sifting through open-access STEM resources and asking questions like: Is this resource culturally appropriate? How relevant is it to the curriculum?

“With that SolarSPELL collection, content also had to be accessible enough that even users with more limited English could understand it,” Pasula says.

Then Pasula learned that SolarSPELL doesn’t just distribute knowledge. It captures how people use it, including what they open, what they revisit and what formats they prefer. Instead of a static library, the initiative adapts, refining content, formats and design based on how people actually use it in the field.

She transitioned into a data analyst role to help make sense of it. Working with survey responses and usage data from communities around the world, she cleaned datasets and built ways to measure what content was actually landing.

“Data science can help find the content that is the most viewed and which is having the most impact,” she says. “And that information will be used to improve the library more and more.”

## **The why behind the work**

For Pasula, the technical challenge was only part of the draw. The mission hit something deeper.

“I’ve always wanted education to be accessible for every single person,” she says. “I have always wanted it to be treated as a human right.”

That belief didn’t start at ASU. During her undergraduate years, she volunteered in schools, teaching digital literacy and helping students navigate scams, misinformation, the hidden risks of the online world. It was her first glimpse at how uneven access to knowledge can be, and how quickly that gap can widen.

SolarSPELL scaled that instinct globally. When she first learned about the project’s decade-long evolution, from scrappy student prototype to internationally deployed system, she recognized its trajectory immediately.

“I knew that this was something big,” she says.

Then came the TIME recognition. The award validated what the data already suggested. SolarSPELL wasn’t just working. It was working at scale, across cultures, across infrastructures,

across wildly different technological ecosystems.

And Pasula had helped make it smarter.

“It's been such a joy having Bhavana on our team,” Hosman says. “She's brought invaluable insights to our data analysis team from her experiences as a curation intern, as well as from her studies in data science and background teaching digital literacy in schools. And her passion and enthusiasm for SolarSPELL is unmatched!”

Outside the lab, she keeps things simple. She bakes — cookies, mostly. She hikes when she can. She navigates the complexity of being an international student building a life from scratch.

After graduation, Pasula is aiming for roles that blend machine learning, data science and product development, ideally in educational technology or nonprofit spaces. The through line is clear: impact, scaled through systems.

“Bhavana’s work highlights how data science can drive meaningful, global impact,” says [Ross Maciejewski](#), director of the School of Computing and Augmented Intelligence. “She’s applying what she’s learned to improve access to knowledge in communities that need it most.”

But Pasula’s work on SolarSPELL leaves behind something more than a credential.

In remote areas, in classrooms without connectivity, someone opens a device and finds information they didn’t have yesterday. They don’t see the data pipelines, the cleaned datasets, the metadata schemas. But they feel the result.

“I think that’s the most meaningful part of SolarSPELL,” she says. “You don’t know me, but you’re using the library and gaining knowledge from it. And being a part of all of this makes me feel so good.”

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*This story originally appeared on [ASU News](#).*

## Main image



Bhavana Reddy Pasula poses with the SolarSPELL digital library that was named a 2025 Best Invention of the Year by TIME. This spring, Pasula receives her master's degree in data science, analytics and engineering from the School of Computing and Augmented Intelligence. During her studies, Pasula worked as a data analyst with the SolarSPELL team. Photo by Enrique Lopez/ASU

**Text image(s)**





Bhavana Reddy Pasula discusses a project with Laura Hosman, an associate professor in the School for the Future of Innovation in Society. In 2016, Hosman co-founded the SolarSPELL project and continues to co-lead it. Photo by Enrique Lopez/ASU



Bhavana Reddy Pasula chats with fellow interns in the SolarSPELL lab. The system's solar-powered hardware delivers a digital library over an offline Wi-Fi hot spot, allowing up to 25 devices

to access curated resources, including the East Africa Agriculture library interface shown here.  
Photo by Armand Saavedra/ASU