Interview with Maria Fernanda (Mafer) Velasquez

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1. Tell us what you study at Stanford and what your career goals are.

I'm a sophomore studying Electrical Engineering with a dream of developing sustainable technological solutions that truly matter for Peru—and hopefully expanding to other Latin American countries. My passion lies at the intersection of energy-efficient systems and high-performance computing, where I can design hardware and software architectures that optimize energy consumption without compromising performance.

But more than that, I care about making these advancements accessible and meaningful. In countries like Peru, where so many communities are underserved, AI's true potential will never be realized unless it's affordable and within reach. Because what's the point of groundbreaking technology if it never reaches the people who need it most?

That's why sustainability isn't just a technical challenge for me—it's a mission. I want to help build scalable, eco-friendly computing systems that empower areas like artificial intelligence, cloud infrastructure, and embedded systems—systems that are not only innovative but genuinely transformative for communities across Peru. Because at the end of the day, I'm not just interested in creating technology for technology's sake. I'm driven by the possibility of creating something that uplifts people, meets them where they are, and helps them build a better future. I truly believe that with the right approach, we can build a future where technology empowers everyone.

2. What are the three most important things to advance AI in Latin America or Peru, whichever you want to talk about?

I think it all starts with efficient and scalable infrastructures, especially in rural areas. In Peru, only 65% of rural areas have internet access, and even when it's available, it's often unstable and painfully expensive. It's clear there's so much work to be done to make these technologies accessible to everyone, but I also see this gap as a powerful opportunity—an opportunity to build something better from the ground up: systems that are not just efficient, but truly inclusive, resilient, and built with our communities' needs in mind.

The second one would definitely be education. It's not just about providing access to AI resources; it's about empowering people with the knowledge and skills to truly benefit from them. In Peru, only around 16% of students pursue higher education in STEM fields, and in rural areas, quality education in technology is almost nonexistent. I've seen so many bright, talented individuals with incredible potential who simply don't have the resources or opportunities to explore these technologies. But I genuinely believe this can change. If we can create educational programs that are accessible, culturally relevant, and inspiring, we can unleash a wave of creativity from all parts of the country. It's about giving people the tools to shape their own future and showing them that their voices and ideas matter.

And finally, I cannot leave collaboration and support behind. None of this can happen without true partnership from the government. I envision a country where the government, private sector, academia, and local communities come together to create meaningful advances in AI. But right now, Peru is facing a deep political and social crisis under President Dina Boluarte's administration, with protests, unrest, and overwhelming frustration throughout the country. Schools are being bombed and threatened, and safety feels like a privilege, not a right. How can we expect kids to learn, to dream, to build, when they're afraid to even walk through their school doors?

If we're serious about advancing AI and technology in Peru, it has to start with making people feel safe, valued, and heard. We need policies that aren't just about innovation for innovation's sake, but about empowering real people—giving them the tools to create a better future. Because what's the point of building AI from the ground up if the very foundations of trust are broken?

To me, real progress means making sure these technologies are built with purpose, with empathy, and with everyone's voice at the table. And that can only happen if we start working together, truly listening, and building something that speaks to the needs and dreams of our people. I've seen how tech, when applied thoughtfully, can transform lives, and I'm hopeful that the advancements of AI will not be an exception.