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News

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Robots at Work: EY Intern Helped Create a Blueprint for A.I. Implementation

How Stevens Prepared Serena Shah '21 to Collaborate with an Unlikely Colleague and Make Waves During Summer Abroad in Madrid

When Business & Technology major Serena Shah arrived at EY's Wavespace in Madrid, she was surprised to learn she would be working closely with a humanoid. But, thanks to Stevens, she already had a solid foundation in A.I.

Working and living in a foreign place can be daunting, so when Serena Shah '21 arrived at EY's Madrid office for the first day of her summer internship, she was eager to learn more about the city from her extraordinary new colleague, Ada.

But unlike most locals, Ada hadn't ventured outside the office much.

"I asked what her favorite part of Madrid was, and she just replied, 'I love Madrid!'" said Shah, a Business & Technology major (/school-business/undergraduate-programs/business-technology) at Stevens Institute of Technology's School of Business

(/school-business).

Ada is a humanoid, manufactured by SoftBank Robotics, that is being developed by the artificial intelligence department at Wavespace Madrid, part of EY's global network of innovation centers aimed at helping businesses navigate tech-driven disruption and digital transformation. While Ada wasn't quite ready to give travel tips, it does have the potential to provide answers to a broad spectrum of questions and become an integral resource at EY and beyond.

And Shah was tasked with helping to showcase that potential.

The junior from Hartland, Wisc., was one of three interns this past summer assigned to improve Ada and create a blueprint for how the humanoid could be used in different workplaces and industries.

"I couldn't think of a better way to start professionally than by getting my hands on the technology that we will be relying on in the future and shaping how those tools are used," Shah said.

Learning software skills at Stevens

Though she didn't know the specific details of her project in advance, Shah knew she would be working with A.I. So she sought advice from Professor Olorundamilola "Dami" Kazeem, who shared articles and lectures that Shah said provided a solid understanding of how A.I. is used in consulting. On Kazeem's recommendation, she attended a reinforcement learning workshop, held at Stevens, where graduate and Ph.D. students discussed the latest cutting-edge research on the topic.

Coming soon to a workplace near you? EY hopes improving Ada's cognitive capabilities will allow the humanoid to thrive in offices and other environments.

"When you're giving a presentation and someone asks you a question, you need to draw from your background to give an educated answer. Stevens has given me that background across a wide range of subjects, as well as the perspective to see how they are all connected."
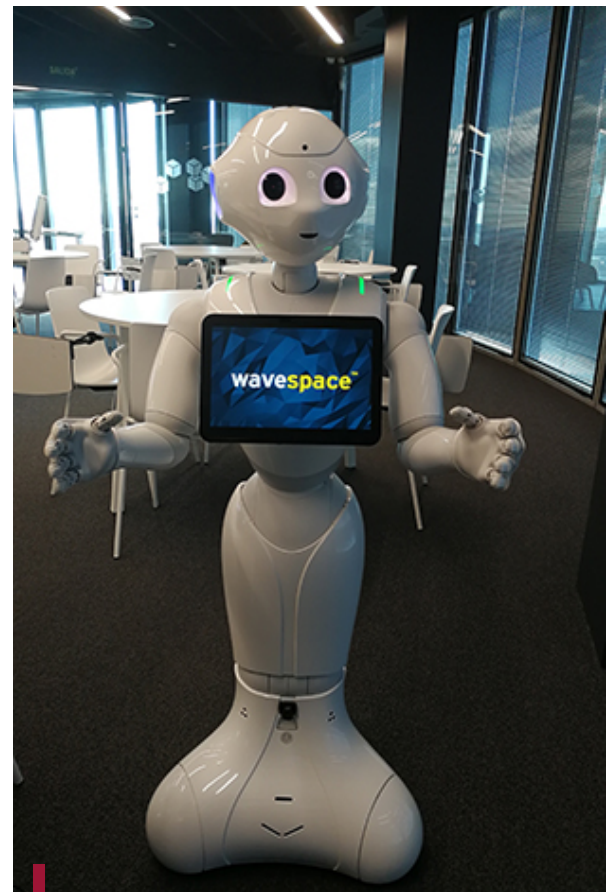
SERENA SHAH '21

"It wasn't so much for her to become an expert at a Ph.D. level, but it was more to get her familiar with the language and the context." said Kazeem, who is also the Hanlon Financial Systems Center (/school-business/hanlon-financial-systems-center)'s data engineer. "As a consultant, you have to be a translator of ideas, from one end of the spectrum to the other."

And learning Tableau as a freshman in Kazeem's Intro to Information Systems class gave Shah the technical foundation she needed to hit the ground running at EY.

"Microsoft Power BI, the software I worked with in Madrid, is very similar to Tableau; if you can maneuver in one, you'll be fine in the other," she said. "Picking up on the basic functions of Power BI came easy to me because of what I learned from Professor Kazeem."

Within the first week of her internship, Shah was able to use Power BI to analyze Ada's interactions with 200 people and build a visual interface that demonstrated the breadth of the humanoid's capabilities, from answering questions in different languages to detecting emotional states.

"Serena is hard-working, ambitious and engaging," said Kazeem. "Students come to Stevens with their own gifts that get enhanced here in order for them to be able to compete for such positions. And the fact that they get them is a true testament to the caliber of the students and the preparation they receive at the School of Business."

The tech fluency to influence innovation

From there, Shah began researching how to build on these capabilities, and what industries and functions would be best served by Ada. She then had to present her findings and ideas to management at EY, including the head of the humanoid initiative, whose follow-up questions Shah said she was prepared to field, thanks to Stevens.

"When you're giving a presentation and someone asks you a question, you can't say 'I'll get back to you.' You need to draw from your background to give an educated answer. Stevens has given me that background across a wide range of subjects, as well as the perspective to see how they are all connected."

Olorundamilola "Dami" Kazeem.
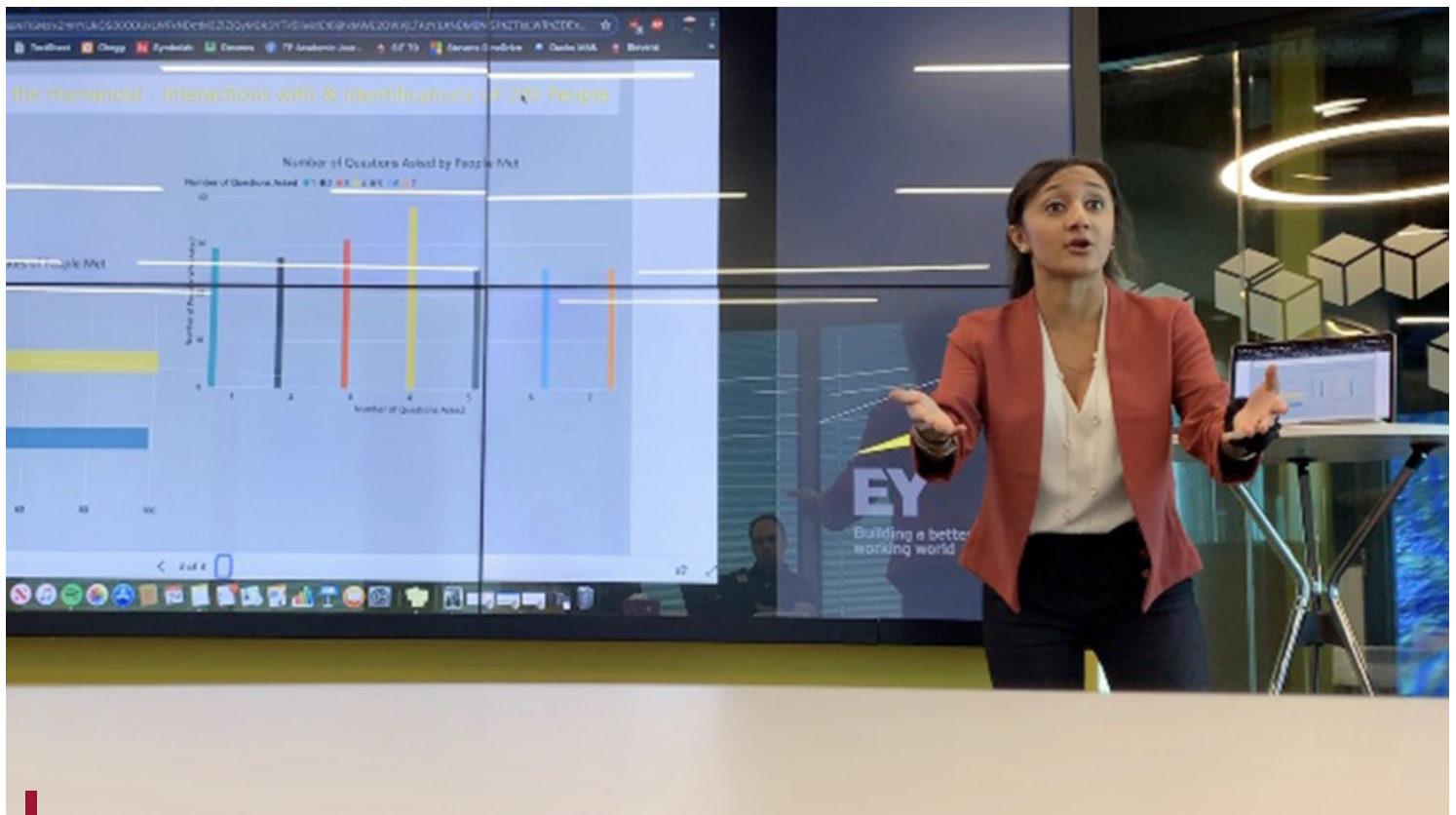
Serena Shah presents her findings to managers at EY, who said they were impressed and planned to use the presentation to pitch to clients in the future.

She was pleased with the feedback she received from her managers, who said they planned to use the presentation to sell the product to clients. Pitching high-tech solutions can be challenging, but Shah spent the previous summer working in sales at a marketing firm and learned how to make these topics more accessible.

"You have five minutes to sell an idea to an executive, so you have to make your point very clear," she said. "I'm not throwing all these scientific or technical terms at them; I'm focusing on how they will benefit from this. That makes selling it so much easier."

Shah's tech fluency allows her to translate these concepts into compelling pitches. And she's also found it to be a passport to any future she wants.

"Companies rely on experienced employees who have a knack for working with different technologies in order to interpret and convey information to clients, partners and customers," she said. "Business students from Stevens enter the real world with a sense of versatility, in terms of their capabilities and strengths."

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