How a Pinterest engineer is helping others find inspiration through visual search

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Searching for ideas on how to arrange photos in her college dorm room, Cindy Zhang turned to Pinterest for some inspiration as a freshman.

Now, the 23-year-old software engineer, who joined Pinterest in 2015, is helping 150 million monthly active users on the social bookmarking site tap into their creative side.

Zhang works on the tech firm's search product team, which consists of 30 percent women engineers. She built the Android version of a new feature the company is testing called Lens, allowing users to discover more ideas by snapping a photo of an object in real life.

"I think as an engineer it's really important to have inspiration to keep you going and work on a product that you really love," she said.

Zhang, who is also a singer in Mino the band, sat down with The Mercury News to chat about the company's visual search efforts. This interview has been edited for clarity and length.

Q: How would you describe your job as a software engineer at Pinterest?

A: I work on the search product team, and we're responsible for all the user-facing aspects of search. We work on Android, iOS and web. The most recent project I worked on was Pinterest Lens and before that I worked on search recommendations, which are recommendations you get from your search results that kind of pivot you to search for other

things as well.

Q: Pinterest Lens basically allows you to snap a photo and then you get a list of recommended pins. How is the beta testing of the product going so far?

A: It's going very well. We've got a lot of people posting what photos they've snapped on Twitter and recipes they've found from Pinterest Lens. We've also gotten a lot of people who take selfies of themselves to get their celebrity look-alikes. We discovered that people really like the suggestions we give from Pinterest Lens. If you took a picture of an avocado and got pictures of more avocados, they didn't find that very helpful. They wanted more context like avocado recipes. We've gotten a lot of people really excited about (Lens) on Twitter and social media.

Q: If you're searching online, normally you would just type it into a search bar instead of taking a photo. How do you change consumer behavior?

A: I think a lot of Pinners find a lot of ideas when they're on their computer. We wanted them to get ideas in the real world. I feel like Pinterest is not a search engine where you type in something and you get an answer. It's more, 'I'm curious and I don't know what I'm going to get as results.' I think Pinterest Lens really helps with that. Here's a type of furniture I really like, I don't know what it's called, but I'm curious about it, so let me take a picture of it and get some ideas.

Q: Sometimes people take photos at a weird angle, or it's blurry. How is Pinterest tackling that problem?

A: We have some tools to address it on the front end and the back end. In the app, if you are in a dark setting, we will turn on the auto flash setting for you. Then we also have back-end detection where we will

detect whether an image is blurry or dark and then basically show a (notification) telling you we can't see in the dark or ask you to stay still. We have image detection that will tell you our results aren't going to be great because you're moving around too much or your image is too dark.

Q: How would you define your own personal style? Do you still use Pinterest frequently now that you work here?

A: I definitely do. Even when I'm working, I get distracted sometimes. If I see something I'm interested in, then I'll just click on the pin and go to related pins. I'm kind of stuck in a hole where I keep on looking for things. Because Pinterest is so visual, it's a tool that really helps you discover your personal style rather than share stuff about yourself. I discovered that I really like minimal style with clothing and also home decorations. I've definitely gotten a lot of ideas on how to decorate my house through Pinterest.

Q: Do you use Pinterest differently as a musician?

A: The band I have right now tries to promote ourselves in a way that's visually appealing. So I use Pinterest a lot for flyer ideas and for cover art album ideas. I feel like most of the music inspiration I get is through listening to music.

Q: In 2016, only 20 percent of Pinterest engineers were women, and the company also fell short of its hiring goals for women engineers. As a woman engineer at Pinterest, why do you think tech companies are struggling to get more women in this field?

A: If we introduced coding and these concepts at an early age, we wouldn't necessarily relate engineering to being a male-dominated field. I was lucky because my mom is also an engineer, so she definitely taught me how to code at an early age. It was always a possibility for me. I kind

of learned how to code through using Neopets. I would make a webpage for my pets using HTML.

At Pinterest, I feel that everyone is very open-minded and doesn't differentiate between engineer and female engineer. I have a lot of responsibility and ownership over projects that have a big impact on the product.

Q: Where do you think visual search will be headed next? Do you see Pinterest going beyond photos? Will we one day be searching through videos or even virtual reality for pins?

A: I think right now we're really trying to show you that object in a bigger context and give you more ideas of actions to take. For example, if you take a picture of a clock. We're trying to show you how to style that clock in your house and other homes with the same clock and what they look like. We're just trying to give you some suggestions on where to take action for that particular object. Definitely, in the future, I think there are a lot of opportunities for visual search at Pinterest.

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Cindy Zhang

Age: 23

Birthplace: China

Position: Android engineer on search product at Pinterest

Previous jobs: Engineering intern at HP, Android intern at Yahoo, computer science and engineering tutor for Introduction to Computer Science classes at University of California at San Diego

Education: University of California at San Diego

Residence: Northern California

Five facts about Cindy Zhang

1. I went to eight elementary schools because I moved around frequently as a child.

2. When I'm not coding, I'm probably doing something musical. I've had experience playing classical violin in high school and singing in an a cappella group in college. Now I'm writing songs for and singing in my band, which performs jazz-inspired pop and contemporary R&B.

3. I've lived in three states after immigrating here from China: Iowa, Tennessee and California.

4. Along with Chinese, other foreign languages I speak include Japanese and Korean, which I studied in [high school](#).

5. My favorite food apart from my mom's food is Korean food.

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