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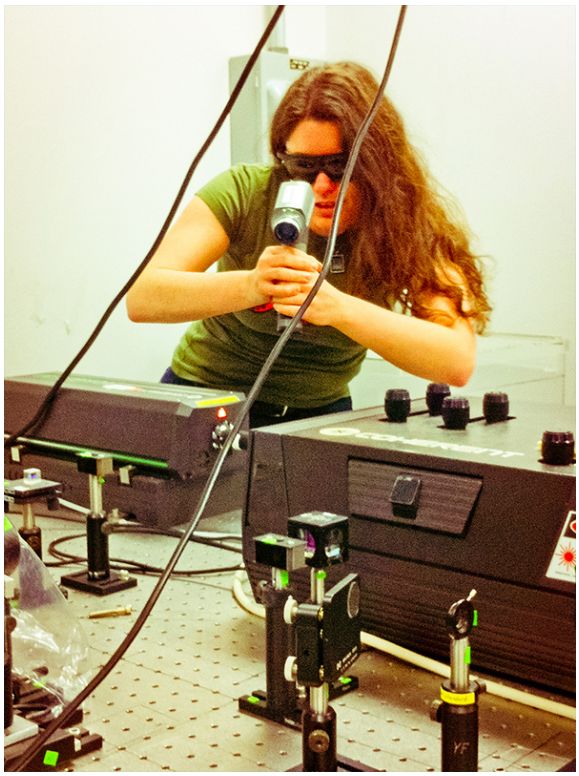
By Ioana Patringenaru Sep 14, 2017

When Artificial Intelligence is Funny—But Not on Purpose

Engineering alumna trains neural networks to be creative to hilarious results

What do you do if you're an animal shelter and have to name a big litter of guinea pigs that suddenly become available for adoption and need to be named? Why, contact Janelle Shane, who earned a Ph.D. in electrical engineering at UC San Diego, of course. Shane works on lasers in her day job, but her hobby is using neural networks to create paint color names, band names and much more.



Janelle Shane

Her efforts have received an onslaught of media coverage, from *Gizmodo*, to *Wired*, to *The Atlantic Online*. When the Morris Animal Refuge in Portland, Ore., came to her, Shane agreed. She trained a neural network with existing names for guinea pigs. Pretty soon, it was coming up with its own creations, including Princess Pow, Popchop and Fuzzable.

"I highly recommend these guinea pigs," Shane wrote on Twitter. "This project had me smiling all week."

The media of course took notice. Gizmodo—and other outlets—wrote stories. Soon, the guinea pigs named by artificial intelligence were a Twitter moment. One of her previous efforts, when she trained a neural network to generate pickup lines, became a question on NPR's weekly news quiz show "Wait Wait Don't Tell Me."

Shane is taking it all in stride. Her newfound media fame is helping her get access to datasets that were harder to come by before, she said. Shane uses what's known as an artificial neural network—essentially, a computer system that connects layers of artificial neurons. The system doesn't need to be programmed but can be trained from examples to generate results.

"I'm not a neural network researcher, but there's never been a better time to experiment with them, thanks to open-source packages," she said.

She publishes her results on her Tumblr blog, Lewisandquark, which she started during her grad school years.

"My goal is humor," she said.

Over the past few years, Shane has trained networks, which she runs on a Macbook Pro, to come up with action figure names (one result: Manic Rad), Pokemon names (Quicelax), story names (American Midnight Swear Dragon), fortune cookies ("People will come true") and more.

Shane's work first got attention when she generated a range of new paint colors, along with some very creative names, such as Dorkwood, Sudden Pine and Burf Pink. For this particular exercise, Shane fed the network a list of about 7,700 paint colors from the Sherwin-Williams catalog, with their RGB (red, green, blue) values. She then trained the network to get increasingly creative. The colors evolved beyond combinations of brown, blue and gray. Their names went from Caae Brae and Saae Ble to Sole Gray and Conk Green and then to Sicks Red, Navel Tan, Horble Gray and Hurky White. This led Shane to conclude that her neural network had really bad ideas for paint names. Also, it really likes brown, beige and gray.

Shane's first experiment with neural networks started with recipes. She dubbed her project the "Silicon Gourmet." She trained the network completely from scratch. It didn't even know what English words were. Posts detailing the network's limitations are typical of the project's early efforts: "The neural network doesn't understand pepper," "The neural network doesn't understand ingredients" and "The neural network has weird ideas about what humans like to eat" are some examples. For that latter post, Shane cited some recipe titles her network came up with after being fed tens of thousands of existing recipes. Creations included cream cheese soup, chocolate chops & chocolate chips and artichoke gelatin dogs.

"It's fun to look at the ingredients the network makes up and how it combines them," she said.

At some point, she started training the network to create mashups of H.P. Lovecraft's prose and cookbook recipes. The results? This sentence is perhaps most representative:

“For I, and I only, know what manner of fear lurked on a cookie cutter.”

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