

## Chatbot, Image Analysis Solutions Are Winners at Minnesota Gov-Only Hackathon

Theo Douglas | August 10, 2018



State, county and local developers flexed their creative muscles and won recognition for putting technology to work to benefit the public sector and residents alike, at a recent government-only, Microsoft-sponsored “hackfest” in Edina, Minn.

Minnesota agencies claimed two of the top three spots in the event, held June 21-22, with the Metro Transit Police Department, which serves riders in Minneapolis-St. Paul, in second; and staffers at Anoka County in third place. Among their solutions, developers used image analysis to further the identification of potential threats. And developers from the state of North Dakota [claimed](#) first place for the second time this year, taking a deeper dive into technology they’d previously explored to stand up chatbots in online high-traffic areas.

North Dakota’s team, consisting of Information Technology Department staffers Chad Gumeringer, enterprise systems architect, and Craig Felchle, longtime systems administrator in the computer systems division, refocused their energy on Microsoft product QnA Maker, which lets users transform frequently asked questions (FAQs) into question-and-answer bots. The state had tested the app in preview about a year

ago, Gumeringer told *Government Technology*, and “took a look back to see what was changed, what was available.”

The two men devised two chatbot-related solutions at the event, both utilizing QnA Maker and integrating with Microsoft’s natural language technology Language Understanding Intelligence Service (LUIS). The first, essentially a proof of technology, focused on enhancing ITD’s help desk by front-loading information to let users pre-select common issues and priority levels before going on to automatically submit a ticket.

“Combining those together, if a user, say, has a scenario where they can’t get something answered to them by using the QnA Maker component, it moves over to, say, the custom bot that we are developing, where it would ask them a series of questions to open a ticket,” said Gumeringer, a member of the state’s winning team at the previous event. At that hackathon, held in Bismark, N.D., in [April](#), a team of public- and private-sector staff expanded upon a community dashboard deployed in beta earlier in the year.

For their second solution at the June event, the ITD team randomly selected the webpage for the state Department of Human Services’ Low Income Home Energy Assistance Program (LIHEAP), and directed QnA Maker and LUIS to create a bot around FAQs, capable of being embedded on the page. The mockup included the ability to click on a question box and augment the interaction by communicating through a pop-up Skype window, highlighting “multiple ways you can communicate with these bots through different channels,” Gumeringer said.

“We could use this across multiple agencies and multiple situations, given the amount of existing FAQs that are already out there,” he said, noting that the technology could also aggregate FAQs from multiple agencies into a single source. It’s unclear whether the first-place win, which netted the team a plaque, will result in implementation of either creation.

In a statement, North Dakota [Chief Information Officer Shawn Riley](#) called the solutions “another great example of leadership everywhere and harnessing technology to improve how we do business and serve citizens.”

The event’s third-place winners, developers Steve Haben and Charles Kolstad from Anoka County, Minnesota’s fourth most populous county at around 340,000 residents, took a closer look at threat identification. The pair used Microsoft Cognitive Service to create an app that would analyze an uploaded image and “determine potential threats” by examining the tag information created from the analysis, the county said via email. By way of example, the county referenced an image of a man holding a handgun and indicated that upon uploading it, the app tagged it with the word “weapon” and the phrase “a person holding a gun.”

“Although the app has not been fully developed, this information could be delivered to a security entity from the application so they may respond appropriately,” a county representative said. While the Minnesota Metro Transit Police Department, considered

the state's third-largest enforcement agency, was the second-place winner, further details about its solution were unavailable.

<http://www.govtech.com/civic/Chatbot-Image-Analysis-Solutions-Are-Winners-at-Minnesota-Gov-Only-Hackathon.html>