

NUS team recognised for creating Web app to aid contact tracers

Other tech heroes also honoured for their positive impact on community during crisis

Kenny Chee
Senior Tech Correspondent

As new Covid-19 cases surged into the hundreds daily in May last year, a team from the National University of Singapore (NUS) raced against time to develop a system to help government contact tracers identify close contacts of patients.

The high volume of cases had threatened to overwhelm contact tracers, who needed to ensure that those exposed to the coronavirus could be quickly identified, tested and isolated to limit further spread of Covid-19.

Despite their relative inexperience in creating such a large-scale system, the team of six current and former NUS students managed to develop a Web application in under three weeks, with help from the Singapore Armed Forces (SAF).

The app collates data from various sources to provide contact tracers with an overview of a patient's movements and the people he was in close contact with.

The NUS team's efforts were recognised yesterday at the IT Leader Awards 2021, which was themed "Tech Heroes From Crisis" to pay tribute to those who made a significant positive impact on the

community through technology during the Covid-19 crisis.

The awards were organised by the Singapore Computer Society.

At the awards ceremony, held at InterContinental Singapore hotel in Bugis, Minister for Communications and Information S. Iswaran said Singapore needs to nurture more tech heroes like those honoured at the awards.

He added that the Government is investing heavily in equipping people with digital know-how and creating good jobs for Singaporeans.

Mr Iswaran noted that the SGUnited Jobs and Skills programmes launched last year have placed more than 12,400 job seekers in infocomm technology jobs and skills opportunities as at the end of January.

There are still more than 18,700 jobs, company-hosted traineeships, attachments and training opportunities available.

The awards yesterday also honoured the team behind the TraceTogether and SafeEntry contact-tracing systems, which were developed by the Ministry of Health (MOH), Government Technology Agency and SAF.

For the NUS team, its Web app pulls information on patients from various sources, such as a person's travel history, family information,

and TraceTogether and SafeEntry data. The data compiled also helped MOH in its daily updates to the public on the Covid-19 patient situation.

Mr Zhu Hanming, 23, who was the co-team lead of the NUS team, said the Web app converted an existing contact-tracing process involving manually updating patient activity on a spreadsheet, into a digital form that could be automatically updated.

This was needed to cope with the large number of Covid-19 cases because the previous manual process, from the days of the 2003 severe acute respiratory syndrome (Sars) outbreak, was incapable of handling the high patient numbers.

The app was built off a concept version that SAF had developed.

Mr Zhu, a first-year computer science student, said the team's toughest challenge was that it had little time to develop a functioning app.

"The time period we had to deploy the app and make any changes to it was overnight.

"We couldn't possibly have the contact tracers wait for us to finish deployment in the day," he added.

But being able to deploy the app in June last year in under three weeks was satisfying for the team and worth the sleepless nights.

"It was incredibly fast for the scale of the application we built," said Mr Zhu.

kennyc@sph.com.sg



Left: Mr Zhu Hanming, 23, co-team lead of the National University of Singapore team that won the Pathfinder Team Award at the IT Leader Awards 2021, held at InterContinental Singapore hotel yesterday. The team developed a Web application that helped government contact tracers identify close contacts of Covid-19 patients.

Below, left: Minister for Communications and Information S. Iswaran said at the awards ceremony that Singapore needs to nurture more tech heroes like those honoured at the awards. He added that the Government is investing heavily in equipping people with digital know-how and creating good jobs for Singaporeans. ST PHOTOS: NG SOR LUAN

