Unis ramp up places for computing courses

Rise of e-commerce platforms fuelling demand for IT grads, say observers

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A growing demand for graduates trained in areas such as artificial intelligence, data analytics and cyber security has seen local universities ramping up related course offerings and vacancies for the new academic year starting in August.

Nanyang Technological University (NTU) said it has allocated 675 places for its 10 computing-related undergraduate programmes this year, up from 450 in 2015.

It has been producing more than 500 graduates on average from computing-related programmes every year since 2015.

Similarly, the Singapore Management University (SMU) sent out more than 250 graduates from its School of Information Systems each year between 2016 and 2018.

"This figure is set to increase," SMU said, adding that the targeted intake this year is 450.

SMU also previously announced that it will offer two new computing-related degree programmes: computer science this academic year, and computing and law in 2020.

As for the National University of Singapore (NUS), the intake for its School of Computing has almost doubled from about 500 in 2015 to 1,000 last year. A similar number of students is expected for this year's intake.

Results of the latest Graduate Employment Survey released late last month showed fresh graduates in the information technology sector posting the highest rates for full-time permanent jobs last year.

Those in courses such as computing, business analytics and information security also earned the highest median gross monthly pay of $4,100, compared with other graduates.

Observers say the demand is fuelled by the rise of e-commerce platforms, and even non-tech sectors like healthcare or shipping.

Professor Pang Hwee Hwa, dean of SMU's School of Information Systems, said: "Computing is reaching into every industry, creating new jobs and changing existing ones. Companies and public agencies are employing digital technology to transform their business models and processes."

E-commerce platforms have also been hiring more people skilled in IT as data is at the core of their businesses, said Mr Lim Teck Yong, head of regional operations and people team at online marketplace Shopee. "Consumer behaviour is constantly changing, and it is crucial for us to understand what our users are looking for and to meet those needs," he added.

Other prospective – and popular – employers include Facebook, Google, Grab and the various banks, say observers, citing computing specialisations ranging from "techie" roles like developing hardware and software, to analyst roles that involve crunching information and data, or strengthening systems against fraud.

NUS dean of computing Mohan Kankanhalli said that Singapore needs computing talent, with Singaporeans forming a sufficient number. "Just like how you would never outsource your military to any other country in the world, you cannot outsource your computing technology," he added.

Parents are also seeing the benefit of exposing their children to skills like computational thinking at a young age, according to a survey of more than 400 parents conducted by a group of final-year communications students at NTU.

The group came up with a campaign that aims to equip children aged four to seven with these skills, which are fundamental to understanding coding and programming. They have lined up free resources and workshops that are open to families from all backgrounds.

Professor Kankanhalli said being good in mathematics is an important prerequisite – even an arts student who did maths at the H2 level could be considered, he said.

"These days, learning is not all about books... Most of all, you should have a passion for computing and a desire to make a difference in the world," he added.

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Prospective students at an open house at the National University of Singapore at the weekend. The intake for its School of Computing nearly doubled from about 500 in 2015 to 1,000 last year. A similar number of students is expected for this year's intake. ST PHOTO: NG SOR LUAN

Popular courses and majors

NATIONAL UNIVERSITY OF SINGAPORE
- Business analytics
- Computer science
- Information security
- Information systems
- Computer engineering
- Data science and analytics

NANYANG TECHNOLOGICAL UNIVERSITY
- Business and computing
- Data science and artificial intelligence
- Computer science
- Electrical and electronic engineering
- Mechanical engineering

SINGAPORE MANAGEMENT UNIVERSITY
- Information systems major
- Smart-city management and technology major
- Computer science (commences in August)
- Politics, law and economics major
- Second major in finance
- Second major in health economics and management
- Second major in accounting data and analytics