

CODE
PLAY

S'pore teens embrace making apps, games

Some have done well in global contests while others have had their work released on Apple's App Store



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Secondary 4 student Jatin Rakesh is the rare teenager who has met Mr Tim Cook.

The famed Apple chief executive briefly interacted with the 16-year-old and other young people earlier in June, during an event at the iPhone maker's annual Worldwide Developers Conference (WWDC).

Jatin and selected students around the world spent a few days at the company's corporate headquarters Apple Park in Cupertino, California, as part of their prize in an annual competition organised by Apple.

The St Joseph's Institution student is one of 50 Distinguished Winners – the top-tiered award for this contest, and the only such winner in Singapore – in the Swift Student Challenge in 2025, where participants use Swift, an Apple programming language, to code.

The game that Jatin designed over two months, called Attention Tractor, addresses the issue of short attention spans.

He says he was excited, anxious and honoured to meet Mr Cook, adding that “the other highlight was meeting the other Distinguished Winners and Apple engineers, and learning from them”.

For instance, one of the other students, from Germany, had created an app playground – the term used for an interactive coding space made with Swift – that deals with dementia. Jatin had thought it was too complex a topic to tackle in his way.

In Jatin's Attention Tractor, users help the main character Theo, a cartoon hamster, come to grips with attention deficiency through a series of mini games. These raise awareness about the importance of sleep and nutrition, and how to improve one's focus.

Jatin says: “My generation is deeply affected by short attention spans. When I have to do homework or run errands, there are distractions in my environment or on my phone.”

“Not being able to focus can lead to frustration. I wanted to dissolve this feeling of frustration within the game. You can put emotions into an app, but it's difficult. Yet the user isn't engaged emotionally, it's hard for him or her to get into it.”

Jatin has taken part in the yearly Swift Student Challenge three times in total, with his first attempt at age 14. He credits his win this time to his app playground being more interactive.

During his recent trip to the United States, Apple engineers gave him helpful suggestions about how he could improve his product by, for instance, adding functionality and linking it to a mobile app that tracks how many hours of sleep one gets.

Teens in Singapore are embracing coding and making iOS and other apps, programs and video games. Their passion sometimes starts from playing popular games like Roblox and Minecraft as a



become creators of technology. Ms Jiang wants other teens to dream big. “I want to build more communities like this, and let people know they can make whatever they want.”

HACKER CULTURE DRAWS TEENS

Hackathons organised by university students have seen a noticeable increase in adolescent participation in recent years.

While teens are a minority at the National University of Singapore's (NUS) annual Hack&Roll event, the number of students from secondary school, polytechnic and junior college rose from 70 participants in 2024 to 90 in 2025. This is according to Mr Jonathan Loh, a computer science undergraduate and president of NUS Hackers, which promotes hacker culture.

Hack&Roll typically attracts hundreds of participants, most of whom are undergraduates.

Mr Loh says: “The initial driving force for this increased interest in building apps is its potential as a new career, as well as exposure to coding in primary and secondary school.”

St Patrick's School students Advait Milind Contractor (far left) and Brian Joseph (left) showing the app FitStreak they co-created two years ago when they were 14. It is available on Apple's App Store.
ST PHOTO: GIN TAY



Ms Jiang Tongyu (left) says making her first app, Habitat – Do Tasks, Grow Trees, which is about managing to-do lists, was an eye-opening experience.
ST PHOTO: VENESSA LEE

of minimal effort for maximum output. I get satisfaction when everything clicks and it's seamless. Another thing I learnt about coding is that you can help people with apps.”

Meanwhile, for Brian, playing Roblox as a child kick-started his ambitions to create his own game.

He recalls: “I thought, I love playing games. Why don't I make them?”

Brian started by making his own Community at the age of nine, the term used for a space where like-minded individuals can engage with one another on the Roblox platform.

He says he was proud of leading his aviation-themed Community, complete with pilots, cabin crew and passengers, for about a year. He went on to create other games on Roblox and to learn tools like the Lua programming language used for video game design.

In 2025, he began taking on freelance work projects in game development, and he has spent more than a year creating his own fighter game. He hopes to release Pandemonium in early 2026.

Brian says programming has taught him values like patience.

He says: “You need to have relentless discipline to create your own game. During the holidays, I used to spend four or five hours a day on it. You have to take it step by step. For instance, getting feedback, even if it's brutal feedback, is crucial, as you need to know where to improve.”

“When you're pursuing a passion, it's not something that comes together overnight.”

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young child, while computer programming becomes a tool for self-expression and empowerment as they grow up.

Some local coding courses and hacking communities are also seeing a rise in participation by teenagers, even as schools and enrichment centres offer coding lessons.

CODING COURSE TAKES OFF

Jatin, a Singapore permanent resident, took enrichment lessons in block coding at age 11. This beginner-friendly approach lets users drag and drop jigsaw-like blocks of code, instead of typing a coding language.

In 2023 when he was in Secondary 2, Jatin co-created, with three other students, an iOS app, Journify, which plans travel itineraries. This was during the eight-month Swift Accelerator Programme he took part in.

Launched in 2018 by the Infocomm Media Development Authority and Apple, Swift Accelerator is a talent development programme for students from Secondary 1 to 3. They learn to code in Swift, and design and build an app for release on Apple's App Store.

Swift Accelerator has seen the number of applicants double since it started in 2018, says Mr Soon Yin Jie, co-founder of Tinkertanker, a technology and education company. There were 18 participating schools in 2018, rising to 35 schools in 2025, he adds.

Swift Accelerator is a flagship coding course run by Tinkertanker, the education programmes brand of Tinkertanker.

Tinkertanker also runs Swift Explorers, an app development programme where students, from



St Joseph's Institution student Jatin Rakesh (above) is one of just 50 Distinguished Winners in the global Swift Student Challenge, a coding contest based on Swift, an Apple programming language.
ST PHOTO: DESMOND WEE

primary school to junior college, can explore Swift coding.

There were more than 69 participating schools in 2024, nearly twice the number of schools when Swift Explorers was introduced in 2022, says Mr Soon. The programme has engaged over 3,500 students since its launch.

The allure of jobs in technology, societal digitalisation, the rise of artificial intelligence (AI) and the widespread availability of coding tuition classes are among the many factors driving this demand, says Mr Soon.

He adds: “Students who take part in robotics courses and competitions probably see app development as a natural progression. With AI, you can build things barely needing to code. I think that's going to spur more interest.”

“Now you can build apps using Swift on iPad, previously you could do it only on a MacBook. There are also schools that use iPads as their personal learning device.”

an iOS app through the Swift Accelerator Programme in secondary school, the 19-year-old has co-created a game, Glowkeeper. About an abandoned world, it is slated for release later in 2025 on Steam, a platform for distributing video games online.

The Raffles Institution graduate has been on a gap year after sitting her A-level exams at the end of 2024. She says making her first app, Habitat – Do Tasks, Grow Trees, which is about managing to-do lists, was an eye-opening experience.

She adds: “I thought apps were made by someone really professional. I realised I had all the tools on my laptop to make them. It was as if I were in a house and opened the front door and found that, suddenly, there's a whole new world to explore.”

“I've always wanted to explore storytelling through technology.”

Ms Jiang was Singapore's only Distinguished Winner for the Swift Student Challenge in 2024.

She describes her entry, Tambourine Story, as a motion-based game about a girl who wants to join a band. “You shake the iPad to play it like a tambourine.”

Now a mentor guiding teens in the Swift Accelerator Programme, she has taken part in hackathons in Shanghai and Austin, Texas.

Hackathons are events where a lot of people come together for a short period of time to write or improve computer programs or other products.

She will soon embark on an attachment in San Francisco for Hack Club, a global non-profit network that encourages teenagers to

Every secondary school student has a school-prescribed device as part of the National Digital Literacy Programme.

EMPOWERED THROUGH TECH

As a child, Ms Jiang Tongyu used to dream of making “mods” on Minecraft, a favourite game in primary school. These user-created modifications, such as new animals or weapons, customise the experience of playing the game. After learning coding languages like Java and Swift, and co-building

The Distinguished Winners of the 2025 Swift Student Challenge at Apple Park in June. Singapore student Jatin Rakesh (back row, in a light blue, long-sleeved shirt) is next to Apple chief executive Tim Cook (back row, centre).
PHOTO: APPLE



Explore the wild

In March, Singapore's fifth wildlife park, Rainforest Wild Asia, opened its doors. It has been dubbed by Mandai Wildlife Group as Asia's first adventure-based zoological park, where visitors can crawl through caves or free fall from a 13m-high platform.

In Episode 5 of nine2twelve, a video series for children, The Straits Times and two guest reviewers visit this park, which is home to 36 animal species.

Watch the video at str.sg/xHhn, then come back and learn fun facts about the endangered animals found in Rainforest Wild Asia. Match each fun fact to the correct animal by writing the picture's letter next to its name.

Check out nine2twelve, The Straits Times' new video series on YouTube, where we present news stories, explainers and reviews of youth-targeted activities in a kid-friendly way. These episodes and activities are by the team behind Little Red Dot, a weekly student publication by ST.

1. Francois' langur
Baby Francois' langurs are born bright orange, but their fur gradually turns black as they grow older. These monkeys live in rocky places with lots of cliffs and caves. They are awake during the day and spend their time climbing, eating leaves and resting in trees.

2. Malayan tiger
It likes to be alone, except when it is looking for a mate or when a mother is with her babies. The cubs stay with their mother for about two years before going off on their own. In the wild, this tiger is hunted for its body parts, which are used in some traditional medicines.

3. Siamangs
The siamang has a big throat pouch which lets it make very loud calls. Its calls can be heard as far as 3km away. The forest acrobat travels from tree to tree easily, covering up to 3m in one swing. When it is not swinging, it walks along branches with its arms extended.

4. Vietnamese pheasant
The males have bright red flaps on their faces and a pattern on their feathers that looks like tiny scales. This bird is native to north-central Vietnam. It was spotted in 1996 in the Phong Dien area of Thua Thien Hue province, but has not been seen in the wild since 2000. Today, the bird can be found only in zoos.

SOURCE: mandai.com TEXT: Amily Goh
PHOTOS: Lim Yaohui, Lianhe Zaobao, Wildlife Reserves Singapore ST GRAPHIC: Jaster Ngui

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