

New AI debugging tool developed in S’pore aims to tackle rising risks

Sarah Koh

An artificial intelligence debugging tool developed and tested in Singapore will be available to local businesses to help them mitigate the rising cybersecurity and operational risks introduced by AI-generated software code.

The SonarQube Remediation Agent automatically looks for flaws in code that are AI-generated or written by humans, and applies fixes with developers’ approval.

The core technology, which helps to scan code bases and provide suggested fixes, came from National University of Singapore (NUS) researchers.

In early 2025, the technology was acquired by Swiss software firm Sonar. The firm is now commercially rolling out the tool after having completed rigorous tests with the Infocomm Media Development Authority (IMDA) and local engineers.

“As engineering teams move faster, it is important that code quality checks and remediation keep pace,” said Dr Ong Chen Hui, assistant chief executive of IMDA’s



(From left) Mr JX Wee, Sonar’s regional director for South-east Asia and India; Dr Ong Chen Hui, assistant CEO of IMDA’s BizTech Group; Mr Marcus Low, Sonar’s corporate vice-president and managing director for Asia-Pacific and Japan; Minister for Digital Development and Information Josephine Teo; Sonar CEO Tariq Shaukat; IMDA CEO Ng Cher Pong; Economic Development Board executive vice-president Pee Beng Kong; and Sonar principal research scientist Ridwan Shariffdeen at the launch of SonarQube Remediation Agent on the sidelines of the Asia Tech x Summit on May 21. ST PHOTO: MARK CHEONG

BizTech Group, on May 21 at the Asia Tech x Summit 2026 held at Capella Singapore. “Our partnership with Sonar helps address existing gaps in this area, equipping

enterprise software teams with practical tools to build at speed, while maintaining quality, security and responsibility.”

The use of advanced AI tools

means that large amounts of code can be generated quickly, but this also results in lots of errors in code that can lead to service outages, said Sonar chief executive Tariq

Shaukat.

AI tools have also multiplied the risks of cyberattacks as they can also autonomously look for software flaws and exploit them.

With AI models such as Anthropic’s Claude Mythos potentially accelerating the speed of cyberattacks, being able to fix software issues quickly has become paramount, said Mr Shaukat.

For instance, Anthropic claimed that Claude Mythos has discovered thousands of high-severity zero-day vulnerabilities, including in every major operating system and web browser, that had been missed for decades.

“Some studies that have been done show that 40 per cent of a developer’s time is spent fixing bugs. But if you ask any developer, it’s their least favourite thing to do as it doesn’t create value,” said Mr Shaukat.

SonarQube Remediation Agent aims to cut down manual checks on billions of lines of code daily for customers including Singapore Airlines, OCBC Bank, Thales Singapore, Endowus and YouTrip. Global customers include Fortune 100 firms Nvidia and Goldman Sachs.

The tool competes with other platforms, such as Cursor, GitHub Copilot and Claude, that offer debugging tools for developers.

It was in 2024 that Sonar first came across the agent originally developed by NUS researchers. The agent, called AutoCodeRover, topped a global benchmark that ranked AI coding agents on metrics such as the number of bugs they attempt to fix and their resolution success rate.

“We essentially turned a university research and development project into a product that can work with 25,000 companies including banks and governments,” said Mr Shaukat, adding that the firm currently analyses 750 billion lines of code per day for its customers.

The company chose to conduct its development and testing locally due to talent density and the Government’s focus on scaling AI with safety in mind, said Mr Shaukat.

“It’s very hard right now to find engineers who are both practical and technical... so the relationship we have with NUS has been very helpful in building our team.”

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