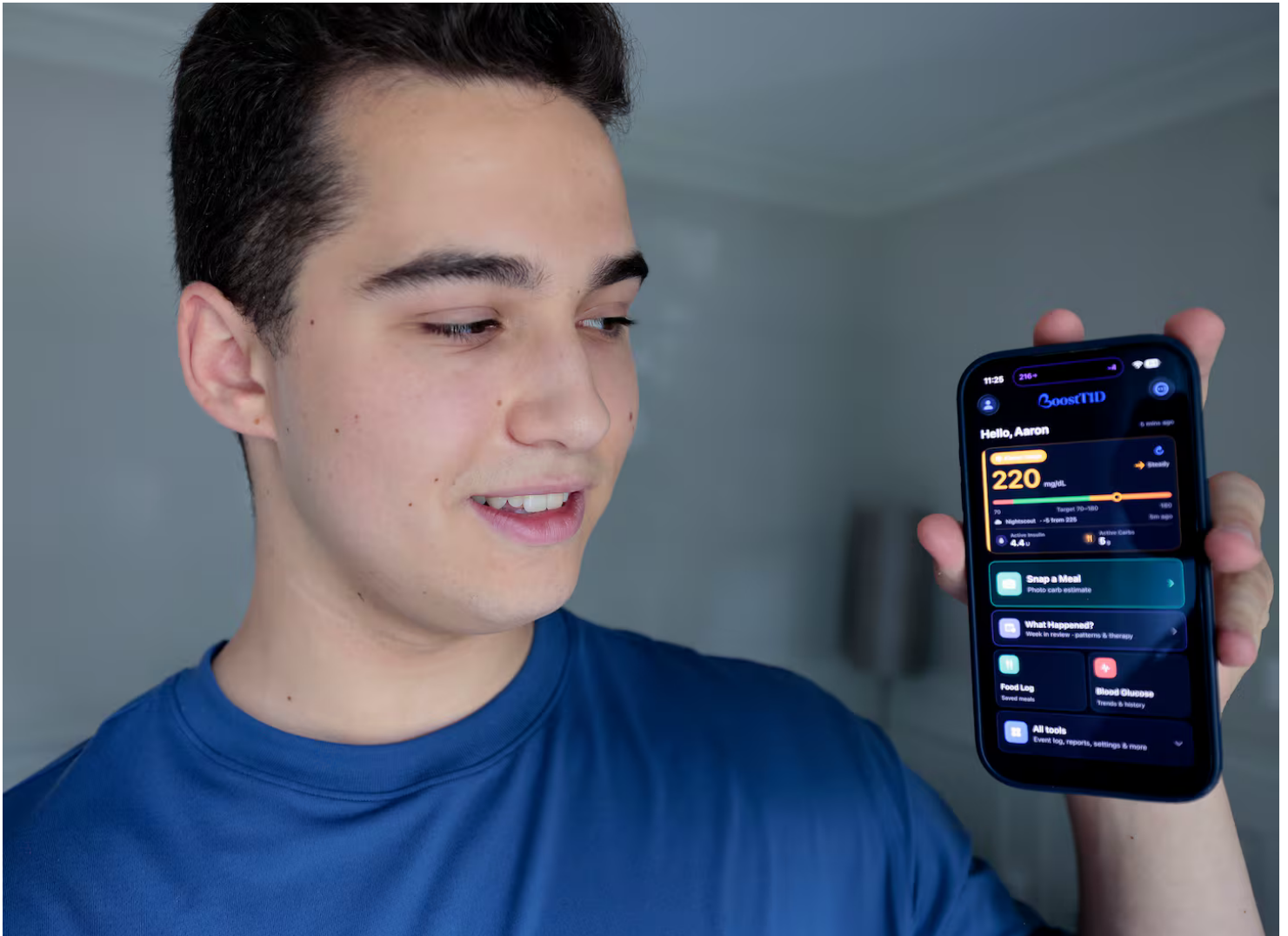


INNOVATION BEAT

This Newton teen's app uses AI to help people manage diabetes

By [Aaron Pressman](#) Globe Staff, Updated August 12, 2026, 1 hour ago



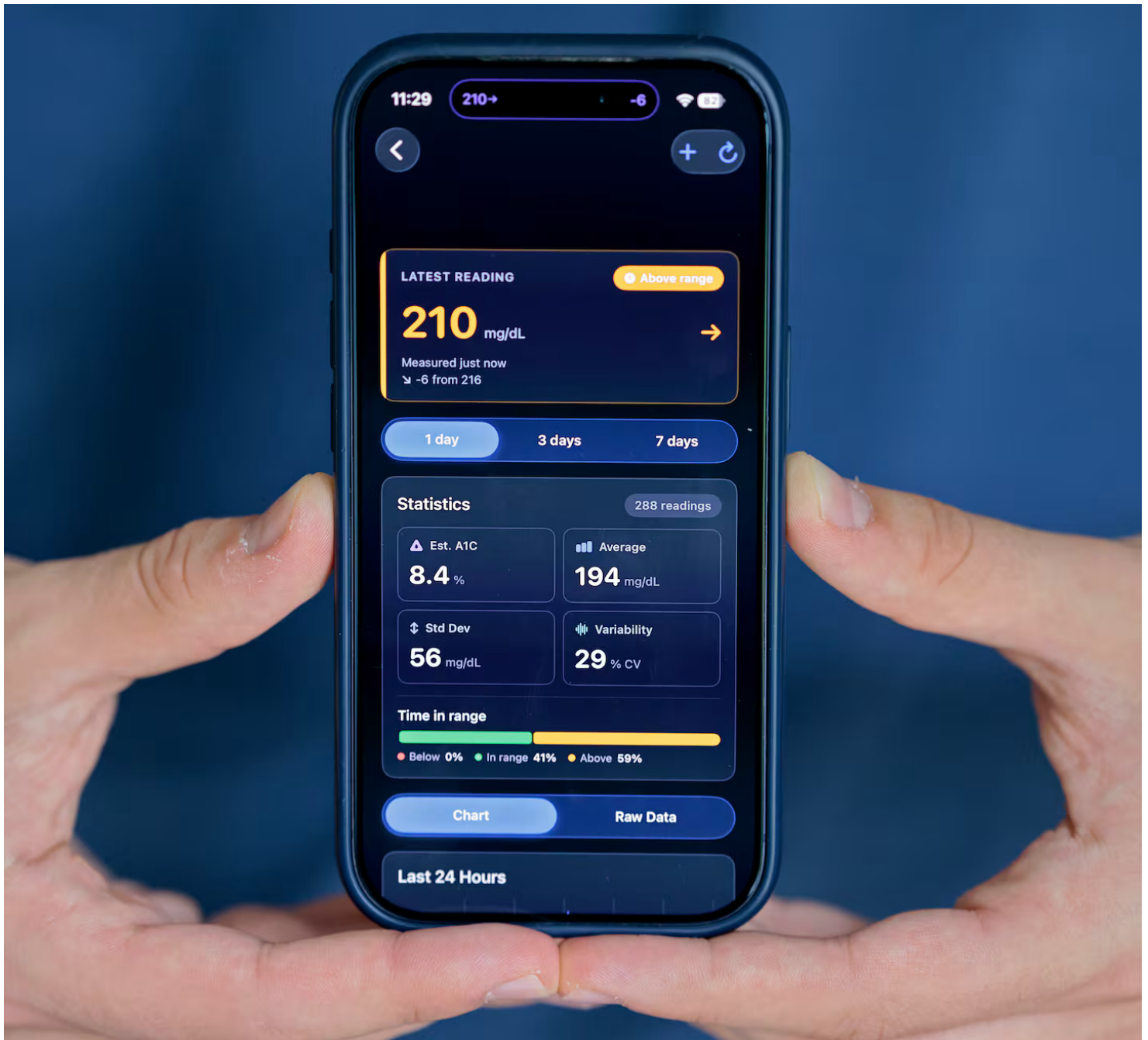
Aaron Prager, 17, is photographed with his diabetes app, BoostT1D, in Newton. PAT GREENHOUSE/GLOBE STAFF

For the 2 million-plus people in the United States managing type 1 diabetes, [technology has long eased the challenge](#) of monitoring blood sugar levels and delivering insulin injections. Bluetooth-enabled blood sensors can assess sugar levels, and wearable insulin pumps can administer precise doses of the hormone.

Now, Newton teen Aaron Prager has gone a step further, creating a mobile app called BoostT1D to help people with diabetes monitor trends over time and track and analyze the foods they eat. The AI-powered app, which Prager said has been downloaded almost 2,000 times, can figure out what a user is eating from just a smartphone photo, and then uncover patterns that can help guide eating habits and insulin doses. [Prager](#)

[also set up a website](#) where users can connect with each other to offer support and advice. About 100 people have signed up so far.

In July, the seventeen-year-old's app won the grand prize at the "[AI for a Better World](#)" student contest run by MIT Solve, the school's initiative that honors breakthrough innovations. That was after BoostT1D was named the winner in US Rep. Jake Auchincloss's district as part of the Congressional App Challenge, and then earned [top recognition among all district winners nationwide](#).



Aaron Prager's mobile app, BoostT1D, can help people with diabetes monitor trends over time and track and analyze the foods they eat. PAT GREENHOUSE/GLOBE STAFF

Prager, who was diagnosed with type 1 diabetes before he was two years old, is something of a child prodigy when it comes to writing software. Both his parents are software engineers, and he went to coding camps and started writing his own video games as a child. He hasn't stopped coding since.

“It just kind of blew up because I really enjoyed it,” Prager said in an interview in his parents’ suburban dining room.

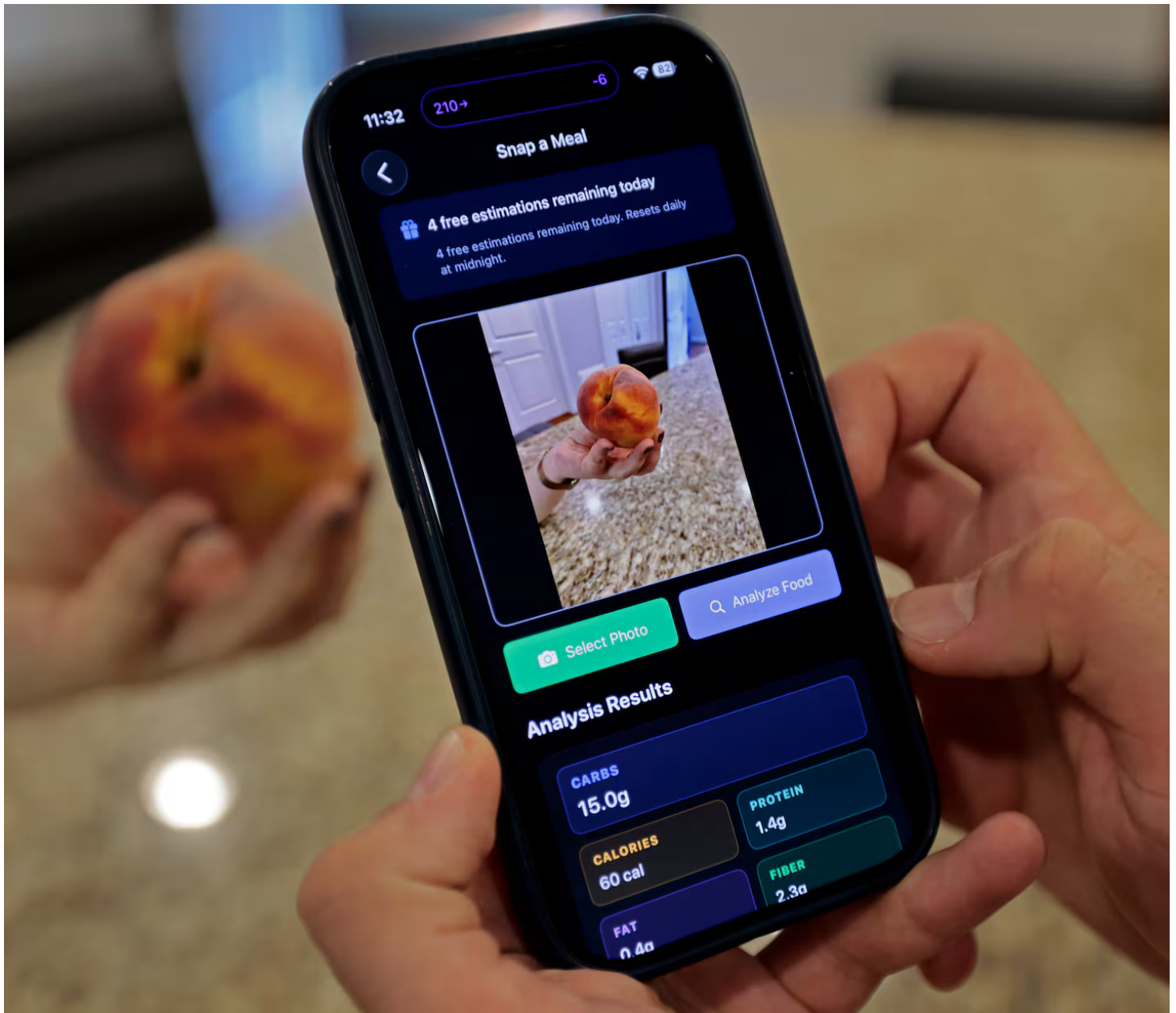
Prager recently found a game he had made at age seven for his dad Yakov’s birthday that was so difficult the adult could not achieve victory. “I still cannot,” Yakov piped in from the next room during the interview.

Alongside his coding activities, Prager was always managing his diabetes and making friends with other kids who had the condition. They commiserated about the challenges of tracking everything they ate and trying to figure out the amount of carbohydrates and other nutrients in every meal.

“One of the biggest things that I’ve found in my experience with diabetes, which is a long time, is that the people around you don’t typically understand what you’re going through,” Prager said. “It’s kind of alienating in a sense. But of course, you still have to live your life, right?”

In sixth grade, he coded an insulin calculator for a science fair project. But trying to figure out what to eat remained a struggle. His parents carried a small scale to restaurants to weigh food that they could then look up on an app like CalorieKing.

Then a few years ago, Prager noticed some mobile apps with computer vision models that could identify items with a phone camera. “I thought, ‘Why can’t you build the same thing for diabetes?’” he recalled. He released the first version of his app as a website last summer and converted it to a mobile app this year.



Aaron Prager, 17, uses the "Snap a Meal" feature on his diabetes app, BoostT1D, to analyze a peach. PAT GREENHOUSE/GLOBE STAFF

Last year, he went to Washington, D.C., to lobby for research funding in an effort called the Breakthrough T1D Children's Congress. There, he met kids with his condition from parts of the country so lacking in health care support that they didn't have access to endocrinologists to regularly monitor and tweak their insulin doses.

So Prager set to work writing algorithms to find patterns in a user's historical blood

glucose, insulin, and carbohydrate data, while still prioritizing privacy (all personal data is stored on each user's own phone). The app uses the information from high-tech blood sensors, one of which Prager has on his arm.

Without regulatory approval, the app can't recommend changes in a user's insulin planning. But the app uncovers trends, such as blood sugar often being high in late afternoon, and creates a report users can give their doctors as they manage their doses.

Prager said he mostly prefers to write his own code for the app, though he used AI coding tools through Google to create the user interface.

A rising senior at the British International School of Boston, Prager has to juggle improving the app with a full course load, college-level computer science classes, and applying to college.



Aaron Prager, 17, is photographed with his parents Yakov Prager, left, and Faina Prager, in Newton. PAT GREENHOUSE/GLOBE STAFF

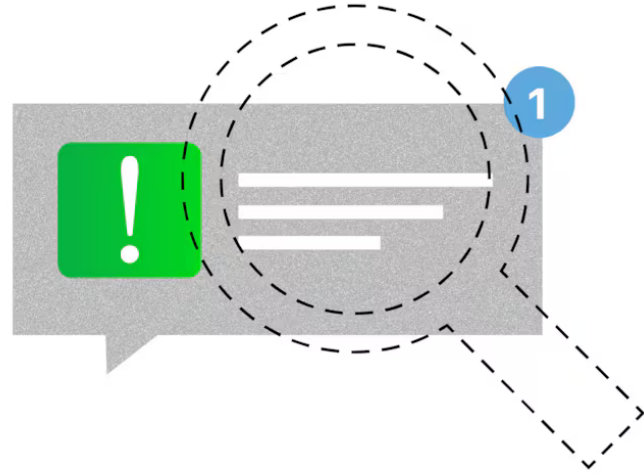
Last month, he spent a few days in San Francisco at VC firm Y Combinator's Startup School. Nvidia chief executive Jensen Huang told the student attendees that they should still go to college but major in basic STEM subjects such as math or physics instead of computer science, because of AI's prowess in the subject.

It gave Prager a lot of food for thought.

"I'm not sure whether software is the direction to go if I want to succeed in life at this point," he said. "I love software, but I'm also interested in finance and med tech. I just

want to go somewhere with a lot of opportunities and research, if possible.”

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