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Bill: We thought NASA was a bunch of really elite scientists and what they were doing was

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like another world from what we're doing, but

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the experience of working with NASA data, with

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scientists at NASA, really taught us about how

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we as kids can contribute.

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Narrator: In early August, a new app became available on the iOS app store. Called Dust Watch,

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it warns users of early dust storm conditions and helps them prepare for the

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potentially hazardous weather events. The app uses National Weather Service

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forecasts improved by NASA data and was built by four Maryland high schoolers,

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who wanted to help people affected by the storms.

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Bill: So as a group of friends, we hang out a lot and one day at the pool, I think,

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we're discussing about the harmful effects of dust storms because we watched

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a really jarring documentary in school and we were talking about it and we were like

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“Wow, we need to learn more.” So I hopped on the internet and

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we just learned more about dust storms and we were like “Wow, this is so bad.”

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Alex: We would have meetings, maybe once a week, two to three hours.

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We're in high school, so we have a lot of tests and stuff right, so we wouldn't have

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a lot of time to do that. When we had like breaks and stuff,

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we would take advantage of the extra time and just have more than one meeting.

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Narrator: After they decided to create the Dust Watch app, the group realized

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they needed some help. A family friend introduced them to the National Weather Service

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database they could use to forecast storm conditions. Then, Bill

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met a software engineer who agreed to mentor them in programming.

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They built the app around their already-busy high school schedules.

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JEffrey: Our app pulls data from a web service on a regular basis,

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so it periodically does calculations for most cities

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in the U.S. that can find what levels

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of certain air quality conditions there are in that

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region and then the user can search that up for

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a forecast or they could also have it periodically

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check in the background by the app and receive push notifications.

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Alex: So it pretty much just tracks all the harmful metrics of dust storms, right? So dust

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concentration, visibility, wind speed and PM 2.5,

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which are pretty much what cause damages and injuries.

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Narrator: The team presented their app to scientists with NASA's applied science program.

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Kevin: My favorite part was attending the HAQAST meeting,

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which is NASA's Health and Air Quality Applied Science Team meeting

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and we got to present our app. We met a lot of people

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and we got valuable feedback on our project.

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Honestly, I think when we all started making this app, none of us probably thought it was even going

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to be that like possible because we had zero programming knowledge at all

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and it was just like an idea we threw out there and it was like

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maybe we could try this and it was like in the end, we accomplished it.

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It just felt rewarding and like relieving to finally have

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the app up in the app store.