

GCSE Bitesize Computer Science

Twitter's James Harlow on testing

My name's James Harlow, I'm a back-end software engineer on Tweetdeck at Twitter. We spend a lot of time testing in various ways, and testing is very important to us because, as you can imagine, reliability is absolutely crucial.

You have front-end testing where, for example, we will ask people to use the client in front of us and see if our design is not obvious, if they're confused by what they see. We have consistency testing, so we'll make sure that we haven't introduced changes that makes the front-end look wrong or makes it look broken. We have significant numbers of unit tests, which make sure that small bits of functionality haven't changed. The back-end load tests a lot, where we make sure that the algorithms that we're deploying can handle the load of hundreds of millions of people using it. We perform regression testing, where we make sure that bugs that we've previously fixed don't reintroduce themselves. And we perform more manual testing as well, just to make sure that every feature works as you would expect it to.

Testers are often more diligent than software engineers. They're more concerned about ticking off absolutely every possibility. Where a software engineer might be more concerned about getting something working, a tester is more concerned with making sure that it never stops working. For example, there are some testers who don't program, but a lot of testers will write automation code to repeatedly run the code that's going to be run by the users or by the back-end to make sure that it works as expected in every circumstance.