



Is programming, as we know it,

Going to be Dead Soon?



Reports from consulting companies have proclaimed the demise of software programming of the computer as we know it. Is it true? While the reports of its demise are exaggerated, there's some truth to it - so beware computer programmers, it's time to upgrade your skills

Let's Explain

We'll use a trivial example that drives home the point. Let's say, you're programming a system to predict whether it's going to rain or not. As a software developer, you consult the subject matter expert to come up with the following simple line of program:

If (cloudy) return(rain) /* predict rain */ else return(not(rain)); /* predict no rain */



Your program works

It considers cloud cover, ignoring other factors like wind, to predict rain. This is how computer programming works -

> translate requirements from subject matter experts, frequently known as system engineers, to code, then test it, and finally, productize

Next, imagine a supervisory Machine Learning (ML) platform that learns how to predict rain from the following training data



Below is the training data to predict rain

Cloud (Predictor 1)	Wind (Predictor 2)	Rain (Outcome)
No	No	No
No	Yes	No
Yes	No	Yes
Yes	Yes	Yes

For simplicity, Machine Learning has two input variables – the predictors, Cloud and Wind – and one output – the outcome, Rain, that ML has to predict. ML gets trained by the above training data to learn that the prediction for Rain depends only on Cloud, has nothing to do with Wind. In essence, the statistical model has been configured by ML to understand this, as if the model implements the logic expressed by the program above. The statistical model predicts correctly



We're confronted with the important question: if ML can develop the logic from training data, do we need programmers to code the logic?

The Answer Is:

No, we don't. This forecasts demise of programming. Let's, however, investigate this question more deeply As we consider ML, some troubling questions arise. Where do we get the training data from? Evidently, the training data above is trivial, while in practice, it's considerably more expansive with many more rows and columns. How do we find out if the training data is complete and free of bias so that ML learns well? Even if ML learns well, how do we trust its predictions to be accurate - does it explain its predictions



so that we can
develop trust in the
model? The devil's
always in the details!
Till these questions are
adequately addressed,
ML isn't going to
replace programming.
The demise of
computer

programming is greatly exaggerated. As we conclude, a word of caution though: increasingly the ML community is working on these vexing issues, resolving them slowly but surely; the time to start to upgrade your skills to include ML is now!

EazyML Platform is easy to use but behind this facade lies a very powerful and sophisticated Machine Learning engine that is one of the best in the market today