

Mathematicians the True Software Engineers and Scientists

Our unique skills are that we can master rapid solutions to problems we have never heard of before... We are not trained to be a particular programmer for a language, but to be able to work with abstract languages and technologies. We have working knowledge of all programming languages and can learn and master a new one in about two days. This is how our curriculum at the university trained us to be, but even after 17 years, industries in real world could not understand or accept this concept and continued to look for "programmers" who have large number of years of experience in a particular language. This is wrong. A Language can change and die quickly. They are always looking for someone who only exists in their childish whim or imagination.

True software engineers' skills are their vigor in seeing a big picture of the whole problem and ability to work on the solution. In the approach to the solutions, the engineer may have to apply his abstract knowledge in several languages and technology infrastructures. Languages have their own little peculiarities. Most low-level people get killed in those peculiarities or need a long time to be able to grasp the concept but can never solve the big-picture problem at hand. Concepts like pointer arithmetic in C++ are not a difficult concept to grasp for someone who has been working with many abstract ways of thinking in mathematics and physics. C++ can take an input in one line like `CIN>>` or `COUT <<`. Java needs to call a couple of libraries and classes and needs four or five lines written to accomplish the same task. Real software engineer doesn't care or complain about it. Languages are just tools to use. My experiences taught me that when someone really needed to work on something, most people in the world did not possess the concentration power and vigor to keep thinking and coming up with a tangible product. Most people would want to start talking about something else (just to ease the pain) or they would fall asleep. Thinking deep brought very excruciating discomfort to most people. True software engineers (mathematicians), can think deeply for hours, days, or they live to think about problems... They are natural problem solvers. This ability is what the industries should be looking for to employ. This is the special talent and aptitude in general population.