IT Professional

Name: Igor  
Position: Software Engineer  
Association to the group: Friend of Felipe

What kind of work is done?  
  
Igor has been working as a software engineer for twelve years, he currently works for a company in a role developing financial advice/planning software. Their clients, many of which are major Australian banks, utilise this software to streamline the process of gathering and analysing client files to be able to give prudent financial advice.   
Igor simplified his role for us and broke it down into a few basic steps.  
  
“Basically everything starts with a client or member of our team opening an issue, a ticket with a problem we have to solve or some feature that is new regarding the software.  
We then generally have some meetings among our teams, deciding what needs to be achieved, and we estimate a time frame to achieve this.  
Once we have determined what needs to be accomplished, I start developing. We work in teams so after my job is ready, someone else in my team will review my code to see if everything is correct and if I am using the right patterns, if they don’t find any issues another person in my team will then begin testing. I also review and test others work, this happens repeatedly.”  
  
When asked if he has any other responsibilities outside the basic software development aspect of his role, he explained that planning is a major aspect of what he does.  
  
“We spend a lot of time planning. I spend most of my time reading, always reading. This could be the description of a problem, how to solve the problem, and then you have to learn a new library to solve this problem. I am always reading and writing, even more so than coding. When you plan something generally you have to write the documentation about it so this is a major part of what I do also.”  
  
Igor also explained his reasoning behind choosing this role of employment.  
  
“I've never really like being a part of the managing staff. I like solving the problems, not really facing the clients all the time, or just managing people. I prefer just solving and fixing problems that are presented to me.”

What kind of people do you interact with?  
  
Igor identified some key people he regularly interacts with, this included:

* Members of not only his team, but other teams also about work they are undertaking
* Managerial staff about progress
* Other departments of the company that their work directly impacts (not routinely, however they do ask questions about their work)

Although Igor clearly enjoys the aspect of his role that limits his interaction with people outside of his team, he explained that it is still needed and is an important part of his job.  
One of the more important being his interaction with clients.   
  
“We have lots of planning and progress meetings with the clients, it's not every day but certainly from time to time. We must face the clients, basically to see how everything is going, their feedback is important to see if we are succeeding. It is a policy of the company so we meet with the clients to see how they are receiving our software and to try and better understand what they are wanting from us”  
  
Before Covid hit earlier this year the majority of these interactions were in a workplace environment, due to current restrictions and limitations most of these are now achieved through tools such as zoom.

Where do you spend most of your time?  
  
Prior to Covid Igor’s employer, and himself, preferred a more office based employment schedule due to thoughts of productivity and scheduling, however since working from home was their only real option they have learned that it is not exactly a bad alternative.  
  
“Because of Covid I think the company is more open to the idea of working from home. They have learned that we can produce the same, or almost the same, from home. That is a good thing for us as workers because I think we have more flexibility this way.”   
  
While he did see the benefits of working from home, instead of an office environment, he did identify some issues that arose with it.  
  
“I miss to getting directly to a person to ask something, like when I have to solve an issue. We have a lot of contact within our team still, and we can contact someone from the other teams too, but it's not the same as it is in the office. Especially if the other team is always having meetings or something else to do, the communication is not as easy, but when you see a person face to face you are able to just go and ask them. That is what I miss.”

What aspect of your role do you find most challenging?  
  
When asking Igor about what aspect of his role he found most challenging he pointed out a common problem that many industries face, clients expectation versus what is actually possible.  
  
“The most challenging part is dealing with the clients, not because of the clients themselves but because there's a big difference of what they want and what the company can actually offer. There can be a lot of misunderstandings in the process of dealing with a client and it can make achieving results really complicated. It is the most challenging part for me, and of course all of us as software developers want to offer the best performance, the best everything, everything that is new. The clients have a deadline that must be met, and the company has a budget to achieve these goals, and it can be difficult trying to deliver results when there isn’t an understanding of the limitations we face due to these constraints.”

Igor also identified the need to research, learn and test new tools as a challenging aspect of his role.  
  
“It's good that we have a lot of info on the internet with Google and everything, but there is a lot of things that are on there that are not what you want. So you must test by yourself, create some routines, and create some prototypes of what you want to do. You cannot just start coding.”

Additional topics

After covering these main topics, we asked Igor a few questions about other aspects of his career.  
  
**How do you keep up with current trends and advances in your field?**

“Generally, I have some small projects of my own that I like to try out to learn new things. For example, I created a restaurant software. Just as a prototype at this stage, but as I try it out, I am learning new things. Now I am going to use this new library and this new language, and just keep playing with it. I think you cannot really learn anything without putting your hands on it.”

**Are you still using the same coding, etc. as you were when you started out?**

“The programming itself hasn't changed much, the programming I think you get used to, you get new language and you choose. It has not change much.  
What's new, is not the code itself, it's how you deliver the software that everybody is using. The ability to have different versions all the time, and everything is tested automatically. We have pipelines for doing that, that is what’s new. You get used to learning new things like languages etc, it is a part of the job.

**Would there be a few languages that you would recommend as ‘critical to know’ as a software engineer?**

“Not specific languages, but it always good to know high level language like Java, C#, another script language like Python or Ruby, and it's good to also know a low-level language like C or C++. One of each, not exactly that specific.”

**If you were starting again, and with your current knowledge, what would be the first programming language a professional in your field should learn?**

“If I could start again, I would start with C or C++. That's what I think most people don't focus on today because they are low level languages, but there are a lot of companies that need this. You are always facing some problems, even if you use Java, Python, or other languages, you have a part of the code that is written in C or C++. So, if you master those languages, that would be really beneficial.”

**Finally Igor, can you share an example of the work you do that best captures the essence of the IT industry?**

“I think the essence is solving real world issues. The best example I have is that I worked on a project for some dentists, they had an idea of planning to put a dental implant in a tomography (x-ray) with the software The software would plan some coordinates to put into a dental machine that they were developing, the machine would then put the implants in the perfect position. It is a new technology that could help lots of people, so I think that's the essence of our job.