

Case Study: Alumni

Alex, Electronic and Electrical Engineering (MEng)

Graduation Year: 2008

Job Title: Software Developer

Employer: CISCO Systems

Department: Telepresence Infrastructure Business Unit



What has been your career path up until now?

I studied EEE at Imperial from 2004 – 2008 and spent the last 2 years of my course on the Power Academy scholarship. I started my job at Cisco (previously known as Tandberg) immediately afterwards. I started as a software developer in a cross product team developing security features, then moved to an applications team. I now work in the lower level systems team who look after the operating system, embedded code for the platform and benchmarking of potential components for future platforms, along with bug fixing and recently looking into IPv6. So a little bit of everything.

What does your job involve?

Typical isn't something I'd be able to say about my job, as it varies from bug tracking on an operating system defect, to playing with a new development board and seeing what it can do, to simply reading about IPv6 and some coaching on how that works from our resident expert. However it usually starts with email – potentially commenting on bugs which I'm interested in or have insight into. This is usually followed by a short team meeting where we cover what's going on in the big wide world of our product and potential issues that could be just over the horizon. Then whatever project I happen to be working on, which may be assisted by people on or off-site – the latter of which will usually mean I'll have them on video conference. Lunch, potentially badminton (when I remember my kit), and then continuation of what I'm doing.

Do you use skills that you obtained during your Imperial course?

Specifically I'm using a lot of embedded C which I learned at Imperial and used in my final year project. Also knowing how IP networks connect together and depending on what I'm working on learning new things (IPv6 being the thing at the moment – along with the BSD networking architecture).

What are your future plans?

In the next few years I'll hopefully get to go down a few abstraction layers and write some VHDL. I'm currently applying for an MSc in Software Engineering, to complete my defection from hardware to software which the company is kindly sponsoring.

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- Alex



Did you choose your course with this particular occupation in mind?

I didn't initially think I would become a software developer – I picked electrical engineering as I was always pulling apart gadgets as a child so it seemed like a good fit (which it was).

What part of your course did you particularly enjoy?

I thoroughly enjoyed my course but if I had to pick favourites, I think that would have to be the programming and digital design courses. Looking back it's clear to me that software was where I was going to end up but at the time it very much seemed like "these courses are easy, these ones are hard – why!?". I like how in computing and digital design things (usually) are very logical. If you do x, y will occur very predictably. The only thing you have to account for now is for peoples' mistakes (usually your own). I think learning the C programming language and the basics of Object-Oriented programming, as well as the skills I developed on my internship were key in me being able to do my job.

Did you gain work experience or an internship whilst at Imperial?

Personally I wish I had applied for internships earlier than I did. Not only do they put everything into perspective but they're useful experience – even the negative ones! There are things I learned about just working in a company that helped me make final decisions on where I wanted to work and in what industry (read: not the one I interned in!) On top of that if you're interested in working for a company an internship is a shortcut into a graduate job. We're much more lenient with our intern interviews than we are with graduates, and most of our interns are offered (and take) jobs once they graduate. The same goes for scholarships – apply apply apply! I was very short on money by the end of my degree - without my scholarship bad things may have happened. It also looks great on the CV.

Were you involved in any extracurricular activities?

Definitely do some extra-curricular activity. Imperial has an amazing Student Union – something which I didn't appreciate until meeting people from other universities. I personally was chair of the cinema, and it was really rewarding – if at times stressful. The extra level of organization required is not only a great talking point for interviews but is also just rewarding in itself. It's surprising how important that side of things is to employers – although we want great programmers we also want people who'll fit in and be a laugh. I also chaired the ICU Cinema in 2008 which, although taking up a lot of time, was quite rewarding. Also I was involved in Ethical Careers and Student Pugwash, as well as Karate.

Did you use the Careers Service or go to Careers events (e.g. job fairs, employer talks)?

Something I never understood was why people didn't go to careers fairs? I got this job through the Engineering Careers Fair and always went to them! Free stuff aside, it's a great way to talk to people who day-to-day do the jobs you interested in. When I give out my card at the fairs I genuinely am happy to reply to any questions people ask – don't be shy! Ask anything!

Could you give us one or more career tips for Imperial graduates?

In terms of interviews, I'd say the most important thing is to be relaxed. Yes you should definitely have a look at the company's website, as well as a glance at your university notes if you're going for a technical role. However just keep in mind you're interviewing the company as much as they're interviewing you. If they're being unreasonable during an interview – maybe they're not the best place to work. Interviewers normally know what they're doing – as they do desperately want to hire somebody, so relax! If you didn't get the job most likely you probably would have been out of your depth or wouldn't have fit in. Just keep sending those CV's out you'll find a great place to work – because face it, you went to Imperial. Sometimes less is more. On CV's this is especially true – don't say you're an expert programmer unless you're prepared to be torn apart by a real expert programmer. If it's on your CV they will ask you about it.

When we interview candidates they are grilled for about 3 hours - you will be asked everything and anything. It's ok to say "I don't know – but maybe this – can I do it this way – is there a solution for this?" in

an interview – nothing loses you a job quicker than just being plain wrong and not realising it. It's OK to not know things – you're only a graduate. A good interviewer will ask the question in a different way or provide you with more tools to see whether you can figure it out on your own. If you manage that then great as you've just shown you can work out of your comfort zone. A lot of interviewers purposefully don't give you everything you need to answer a question, and are just waiting for you to ask particular question to show you understand the problem – from that point they think you're a "yes" candidate. Ask questions, both technical and general. It shows you're interested and keen, and you get to know more if you have to make a choice on who you want to work for. On top of that it'll help you do that oh so important thing – relax!

