



## Case study

### Cyber Security Specialist

<b>Name:</b>	<b>Jamie</b>
<b>Age:</b>	<b>23</b>
<b>University:</b>	<b>York</b>
<b>Course:</b>	<b>Electronic &amp; Computer Engineering. MEng</b>
<b>Current job title:</b>	<b>Cyber Security Specialist</b>

### **How did you get your current job – what were the steps you took whilst studying?**

“I learnt about GCHQ while investigating summer placement opportunities. I think it was from a Google search that I came across their website but, after reading the information about the work and the contribution GCHQ makes to national security, I was definitely interested. Fortunately at the time the application process was open for technologists to apply for sponsorship. I was successful in securing two summer placements at GCHQ and my experience during these cemented my desire to work here full time. At the end of my second placement I was offered the chance to become a full GCHQ employee and was successful in my application (but there were also routes available for people who hadn’t had any previous experience).”

### **Why did you decide to join GCHQ?**

“It was really after researching the Department, I admit I’d never heard of them, but when I started to read about the context of the work it soon became clear that it aligned with my own principles and was what I wanted from a career. Yes I could earn more money in the private sector doing what I do, but it wouldn’t be anywhere near as interesting and I certainly wouldn’t be able to make the impact that it is possible to do here.

In addition, I was also drawn to GCHQ because of some of the softer benefits, many of which I didn’t appreciate until I was doing my placements. GCHQ really does invest in its staff; there is good training, but more importantly a real sense of support and camaraderie within the team. Plus, GCHQ operates flexi-time so I don’t have to work set hours and can manage my time according to the demands of my work. It’s a really refreshing and mature approach where I have the trust and responsibility to dictate my own work patterns to deliver my tasks.”

### **How relevant was your subject of study in securing your current job?**

“If I’m honest there wasn’t a great deal in my studies that was directly relevant to what I do now. However, the principles of what I covered certainly helped. For example, I did a programming module that led to me developing an interest in this area in my spare-time – this was certainly beneficial during my placement periods. More broadly though, the skills I developed whilst studying (such as problem-solving and planning my time) have been invaluable. It has become apparent to me that the type of technical degree isn’t critical to success; it is more about having the right skillset/mindset.”

### **What skills are necessary to perform well in the role?**

“Crucially you have to be good at problem solving and delivery. For example, in my software development role I have to be able to write scripts to solve problems fast. I often describe the coding style as ‘coding to fix a problem, rather than coding to a specification’. Other tasks involve the design, delivery and support of applications for broad distribution, and these are often accompanied by challenging timeframes.

Communications skills are important too and you have to be able to share your knowledge with a range of people. So this means being able to take highly complex technical information and relay it in a way that can be understood by somebody without any expertise or technical skill.

Lastly, the ability to work in a team is vital – it doesn’t matter what you do at GCHQ you’ll be part of a wider team or be expected to work with teams across the Department.”

### **What's the training like?**

“Due to the nature of the work there is lots of on-the-job training, but it is ‘real’, it’s not hypothetical, so this really aids the learning process. It can be daunting and you have to be prepared to be thrown in at the deep end and accept responsibility from day one, but there is a strong support mechanism in place so it’s not like you are abandoned. For me, the fact that I was given such responsibility immediately was a real attraction.

There are also numerous external courses that are coordinated to deliver the advanced technical understanding of operating systems and programming languages that we need. The courses GCHQ coordinates often go beyond the scope of commercial courses because of the in-depth knowledge required – again testament to the investment given to training.”

### **What do you enjoy most about your job?**

“For me it’s the freedom to experiment! I use my skills as a developer in order to create tools to aid my own and my team’s analysis work. If I consider I have a good idea then I don’t come up against any resistance about trying it. There is a real drive in the Department for change and innovation, and when you add to that the opportunity to make a difference it adds up to a very satisfying role.”

### **What are the most challenging parts of your job?**

“The level of technical knowledge I am expected to develop and maintain is challenging but the fact that I am always learning new skills is what motivates me. I guess my only grumble would be around some of the bureaucracy, but this is no different to any organisation – public or private sector.”

### **What are the best things about working in this sector?**

“Working in the cyber arena provides a constantly evolving context to the work, meaning that no two days are the same. There is always an opportunity to be the first to solve a particular problem, report on a new technique or develop a new capability to help defend UK cyber-interests. The work is real, relevant and important! What we contribute to is fascinating and ever changing, so we are always evolving in order to stay one step ahead. The pace of work varies daily, from urgent rapid responses required within hours, to more thorough detailed analysis which could take many days. This is what makes it so enjoyable and exciting.”

### **Finally, what advice do you have for other people/students/graduates who would like to get into this career?**

“Apply early – it takes a while! And, if you are in the position to consider a placement then definitely go for it, it will give you unrivalled experience.

Also, don’t be put off by the lack of information in the adverts and job descriptions – there are valid reasons why GCHQ can’t tell you lots about what you’ll be doing! However, it is all about aptitude – that’s what GCHQ’s assessment processes are about. The work is unlike anything else so it is expected that very few people will have all the necessary skills – don’t rule yourself out because you don’t think you have the right skills or couldn’t do it. You may be surprised by what you didn’t know you could do!”