See things that others don't
Join us in the fight against cyber crime

Case study

Cyber Security Researcher

Name:	Chris
Age:	24
University:	Southampton
Course:	MEng Computer Science
Current job title:	Cyber Security Researcher

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

"During the final year of my degree, I was curious about what role GCHQ played in the cyber security arena. Browsing the descriptions on the careers website, I realised that a lot of the skills they were looking for matched up with my passions. From there it was just a no-brainer to apply."

Why did you decide to join GCHQ?

"I don't think I'd ever be happy just working with the single goal of increasing my bank balance; that would be too easy. Working at GCHQ offers constant opportunity to work on problems that make a difference to the security of our country. You'll never find work this interesting outside of the intelligence community; industry just can't compare."

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

"My degree played an important role in securing my current job, but mostly as evidence to demonstrate that I had the discipline, motivation and energy to build on something as important as my education. A lot of the skills I use day-in, day-out are the ones I developed in my own spare time as part of a passion for the degree I was doing. A degree serves as an important foundation, but it's what you build on that foundation that counts a great deal, too."

Describe a typical working day in your current job.

"I can't be specific at an unclassified level, but I generally spend the majority of my time one of two ways. Firstly, I apply my skills analysing computer systems used by Her Majesty's Government (HMG) to uncover any shortcomings or flaws, ensuring we don't succumb to cyber attack. Secondly, I develop tools to speed up my analysis tasks and to capture the methods I find myself manually applying. I'm fortunate enough to have a lot of research time to invent and experiment with new ways of approaching these difficult tasks – something I would never get with the commercial pressures of industry."

What skills are necessary to perform well in the role?

"You must have a good appetite for approaching technically difficult problems and taking satisfaction in defeating them. This role is one that you can't blag; the goal is to understand systems, often better than the people that made them and better than your adversaries so that HMG can protect and defend."

What's the training like?

"The training is very good. GCHQ takes pride in employing some of the best minds in the country and is keen to keep its skill-set fresh and current. On joining, you'll find numerous courses available to reinforce your understanding or teach completely new skills and there are vast amounts of reading material, books and in-house knowledge. The expert knowledge of staff within the building is ridiculous and the internal culture is very much open to answering questions, sharing knowledge and discussion."

How has your role developed and what are your career ambitions?

"I've found that the level of depth of my understanding for the specialist role I sit in has grown a lot over the past two years I've worked at GCHQ. My confidence in approaching very difficult tasks has improved a lot as a consequence; I'm always thirsty to better myself with the knowledge that the challenging work and quality training is constantly around me.

My career ambitions are to develop myself further as an expert in the fields I already work in. I'm starting to find my name getting around to different teams within the organisation; as a result fresh and exciting new tasks come along, often with real-world implications."

What do you enjoy most about your job?

"The lifestyle at GCHQ is an amazing part of my job: my working environment is very comfortable, especially with flexi-time. I tend to get in early, grab a coffee and can usually spend several hours focusing on one or two projects, listening to music and immersing myself in understanding. The variety and depth of work is the other most attractive part of working here: some of the projects are incredibly fascinating and just make you smile."

What are the most challenging parts of your job?

"What I actually do in my job is a very complex and involved collection of tasks that can be very taxing, mentally. If I fit in a good run of several hours, I can be pretty exhausted by the end of the day. But that's what keeps me coming back every morning. I'm addicted to the challenge."

What are the best things about working in this sector?

"One of the most satisfying things is working for a greater purpose than just making money, and taking pride in it; addressing real problems and being in touch with a whole other world that plays out behind the scenes of the global stage. You will only ever see that world in an environment like GCHQ."

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

"It can be quite difficult to see how your passionate interests in your field apply to the work GCHQ does; it's common to not know exactly what your job will involve until the day you begin. My advice would be that if you are offered an interview, make sure you know what you know and what you don't – nobody is expecting you to have researched the role you're being interviewed for in as much depth as you would with a normal job. If you claim to have technical skills on your CV though, be prepared to be asked by an expert about it!"