I Am a Systems Engineer and I Do…
Luke Edelston

Why did you choose to be a Systems Engineer?

I think Systems Engineering chose me!
I did a physics degree for three years and at the end of it I was less interested to know the absolute details of quantum mechanics or general relativity, and more interested in applying my skills to something useful. What I didn't know was that I was actually interested in engineering - the application of physics.
After quite a few job applications I found a technology company who were hiring on their graduate scheme. On a telephone interview they asked something like, "What interests you and what would you like to do?"
My honest response was, "I like to understand why things work and to get an overview of things, rather than getting into the absolute fine detail." They replied, "So, you want to be a systems engineer then?" Without knowing what this meant, I said, "Er… yes!" And that was it…
A couple of years later I formally became a "real person" (not a graduate), otherwise known as a systems engineer!

What education/qualifications do you have for Systems Engineering?

I have been an Associate Systems Engineering Professional for a year or so now. I plan to apply for CSEP over the coming year too.

What is it about Systems Engineering that you find so compelling?

The wide range of projects and different roles you can undertake as a "systems engineer".
In my working life I have worked on:
- Microwave generator systems
- Radiotherapy power sources
- RF measurement devices
- Surveillance systems
- Interrogator Friend or Foe systems across air, land and sea

They all have a common thread, which is RF, however the power levels and what they are used for is completely different for each. Being a systems engineer meant I could apply my skills to all of these.

Role-wise, I have spent most of my career working on the left-hand side of the V - that is concept development, requirements management and architectural design. I find all the different ways of potentially designing and describing systems to be fascinating. I really enjoy architectural modelling above all else because it is all about communicating complicated systems in simple ways, appropriate to the audience.

What is your advice to people considering Systems Engineering as a profession?

Engineering, and particularly Systems Engineering, is such a wide-ranging and interesting career. If you are interested in problem solving, working in a team, interacting with people, communicating ideas or designing systems, then Systems Engineering is perfect for you.

Initially I saw the word "Engineer" and thought it meant "hands-on" or "practical", so I was reluctant to apply for those jobs. Engineer can mean basically anything, but really I think it means "problem solver", so it can be as hands-on as you wish - so don't let that put you off!

Finally, being a systems engineer will mean that you will get exposed to many other disciplines of engineering, so you can learn the parts that really interest you!