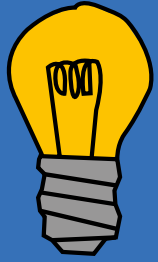




Emma-May Butroid Electronic Engineer RAL Space



Describe yourself in 3 words.

Organised, enthusiastic,
meticulous.

What do you enjoy most about your role?

I enjoy the challenge of designing electronics for space, and seeing the finished working product that I have designed.

Why did you choose to work at STFC?

I find the environment supportive and I think it is great to be able to work in a place where there is so much research going on.

How did you get here?

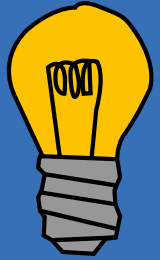
When I was at school, I enjoyed making circuits, so continued in this area by choosing Physics at A Level and an Electronic Engineering degree at university.

What are the top 3 skills you need to work at STFC?

Teamwork, listening to others, eagerness to learn.



Stephen Turner Electronic Engineer ISIS



Describe yourself in 3 words.

Relaxed, observant, collaborative.

Why did you pick to be an electronic engineer?

I was always interested in learning how things work, and had ideas for projects to do in my spare time but didn't have the skills for. So I did something to give me those skills and make a career out of at the same time.

Why is the work you do important?

I work at a particle accelerator that scientists and engineers use to do experiments in material science. This has included research into making safer aircraft and new materials that can be used in medical surgery.

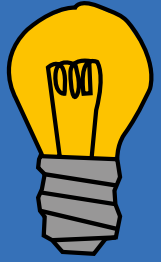
How did you get here?

I took the route of A-Levels and university, where I did industrial placements to figure out where I'd like to work after I graduated.

What are the top 3 skills you need to work at STFC?

Willingness to learn, communication, teamwork.





An electronics engineer designs devices which require electricity to work. This involves combining relatively simple components, such as LEDs, resistors and capacitors, to do more complex things. Every department in STFC has electronic engineers from RAL Space, Technology, ISIS Neutron and Muon Source and lots more!

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Nathan O'Donoghue Mechanical Engineer Technology



Describe yourself in 3 words.

Honest, inquisitive, passionate.

What is your typical day like?

I feel like I'm making a lasting difference at RAL – much of my efforts are going toward a bigger picture to enable ground-breaking science. I also enjoy helping to inspire the next generation through STEM outreach.

What are you most proud of?

As a "Graduate Rep", I've had a pastoral role to support other graduates. One graduate told me that if it wasn't for my support, she would have left RAL near the start of her graduate scheme.

How did you get here?

I studied a degree in Mechanical Engineering. During my degree I applied for a placement at RAL, and was later offered a graduate position with the same team.

What are the top 3 skills you need to work at STFC?

Communication, innovation, ability to learn.





Abigail Basham
Mechanical Engineer
ISIS



Describe yourself in 3 words.

Creative, focused, ambitious.

What is your typical day like?

I usually have 2 to 3 different projects I am working on, and split my time between these. This is mainly design work, where I sketch design ideas for a system and create computer models using CAD software.

Why did you choose to work at STFC?

I like the technical nature of the work, and the varied engineering challenges that come with working at a scientific research facility. I also like the positive impact STFC has through the science it enables.

How did you get here?

I studied for four years at Southampton University to complete my master's degree, and I then applied for the graduate scheme at STFC.

What are the top 3 skills you need to work at STFC?

Problem solving, research, ability to learn new skills.



A mechanical engineer designs systems where moving components and/or supportive structures are required. They can be involved in thermodynamics (heat), fluid dynamics and energy components. Every department in STFC has mechanical engineers from RAL Space, Technology, ISIS Neutron and Muon Source and lots more!

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Kate Winfield
Data Scientist
RAL Space



Describe yourself in 3 words.

Enthusiastic, helpful,
hard working.

Why did you pick to be a Data Scientist?

I have always wanted to work in atmospheric science. I was captivated by my first Geography lesson at school, which was to do with extreme weather. Since then, I knew I wanted a job in that industry.

Why is the work you do important?

I making data available on the CEDA archive to enable other scientists to continue observing, improving forecasting and climate models.

How did you get here?

I was told at primary school I wouldn't pass my GCSEs as I was not clever enough... but I went on to study Physical Geography at Coventry University! I then applied for a full-time job at CEDA after graduating.

What are the top 3 skills you need to work at STFC?

Communication, enthusiasm, problem solving.



Samuel Jackson
Data Scientist
Scientific Computing



Describe yourself in 3 words.

Curious, motivated, enthusiastic.

What is your typical day like?

Mostly it's about writing code to sort complex scientific data into a meaningful format, so we can use it to solve problems. I also spend a reasonable amount of time reading papers and playing with new software tools.

Why did you choose to work at STFC?

STFC does lots of incredibly interesting work, much of which can only be done in a few places on the globe. It's incredible to be involved in such great science.

How did you get here?

Originally I came to RAL as a sandwich student, as a software engineer in ISIS. After university I returned as a graduate and, after a couple of rotations, I changed path slightly to follow my love of machine learning.

What are the top 3 skills you need to work at STFC?

Curiosity, problem solving skills, enthusiasm.



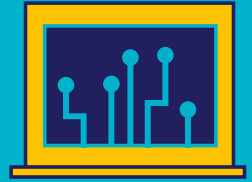
Data is growing all the time, every single second, in every work sector from crime to science, health and business. A data scientist solves complex problems in the storage and handling of data for the long term preservation, turning raw data into meaningful information. This requires computer programming, artificial intelligence, machine learning and statistical tools.

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Tom Dack Software Engineer Scientific Computing



Describe yourself in 3 words.

Outgoing, committed
and resourceful.

What is your typical day like?

A typical day will often involve trying to solve a specific problem e.g. ironing out bugs, working out why users are having issues or even developing something new – it varies quite a lot!

I also quite often help with the public engagement STFC does. So my days may also include site tours or computing sessions making use of our mindstorms and Arduinos to share my excitement for computing.

How did you get here?

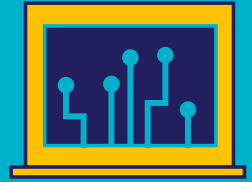
Before starting the STFC graduate scheme, I went to the University of Birmingham, where I completed a BSc in Physics with Particle Physics and Cosmology and MSc in Computer Science.

What are the top 3 skills you need to work at STFC?

Teamwork, communication, technical skills.



Rebecca Harding Software Engineer Central Laser Facility



Describe yourself in 3 words.

Enthusiastic, inquisitive, friendly.

Why did you pick to be a Controls Software Engineer?

I love problem solving. I write software to get devices to “talk” to each other within a control system. It’s really fun to figure out how to get things to work.

Why is the work you do important?

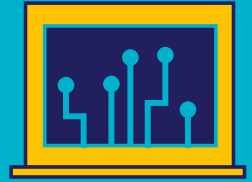
My work allows scientists to control and monitor lasers, to see if they are functioning properly, and make changes from a remote location. This means they can work on the laser systems more efficiently.

How did you get here?

I went to university to study an integrated masters in Robotics. I did a placement year at STFC, and because I enjoyed it so much I applied to come back after I had completed my studies!

What are the top 3 skills you need to work at STFC?

Communication, enthusiasm, perseverance.



A software engineer solves complex problems by writing code for a computer to run, developing new technologies.

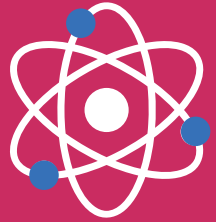
Every department in STFC has software engineers from RAL Space, Scientific Computing Department (SCD), Technology, ISIS Neutron and Muon Source and lots more!

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Danielle Clarke
Laser Scientist
Central Laser Facility



Describe yourself in 3 words.

Enthusiastic, ambitious
and inquisitive.

What do you enjoy most about your role?

Every day is different. My work is research based so we are discovering new information all the time. This is not repetitive or dull and I learn new things every day, which makes coming to work exciting.

What is your typical day like?

I usually spend my day both in the lab setting up and running experiments with lasers and in the office using software to analyse data and model laser systems.

How did you get here?

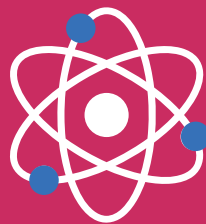
After A-levels, I studied Theoretical Physics at the University of Sheffield. During summer holidays I gained experience as a Teaching Assistant and Laser Engineer, before starting as a Laser Scientist at STFC.

What are the top 3 skills you need to work at STFC?

Collaboration, communication, innovation.



Peter Baker
Instrument Scientist
ISIS



Describe yourself in 3 words.

Slow, funny, silly.

What do you enjoy most about your role?

Discovering things that people haven't known before, and working on a wide range of different projects.

Why is the work you do important?

Most of my work includes trying to understand how materials used inside batteries could work better. If we can improve these materials then batteries could be safer, cheaper, and if used more widely, help reduce pollution and fight climate change.

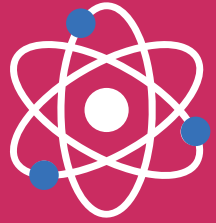
Why did you choose to work at STFC?

I get to work on a wide variety of projects and with a wide range of people, and have access to some of the best tools available to do the science I'm interested in.

What are the top 3 skills you need to work at STFC?

Organisation, communication, perseverance.





Physicists study how everything works, from the smallest parts that everything is made of, to the largest galaxies in the universe. Physicists create theories and test them with experiments. Lots of the work at STFC helps physicists and other scientists do experiments; the ISIS neutron and muon source, the Diamond Light Source, and the Central Laser Facility all help physicists look inside materials, to find out that they're made of!

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Lauren Mowberry
PE Officer
RAL Public Engagement



Describe yourself in 3 words.

Friendly, passionate, curious.

Why did you pick to be a Public Engagement Officer?

When I was younger, I didn't realise I could do a job like this. I've always been creative, had a passion for physics and enjoyed talking to people about how things work. This job is a perfect combination of all of these things!

What is your typical day like?

No two days are the same! Usually I'm based at the lab, leading events and tours, and running the RAL Work Experience programme. Occasionally I visit our other locations, including our lab in a mine! I love it all!

How did you get here?

I took A-Levels at school and then studied physics at University. Whilst there, I worked at a few festivals explaining science to the public and realised I liked this more than doing the experiments. Then it turned out it was actually a real job!

What are the top 3 skills you need to work at STFC?

Teamwork, curiosity, passion.



In STFC, science communicators aim to inspire, inform and engage the public in the research, science and engineering that takes place across the organisation. One of their goals is to encourage the next generation to take up careers in STEM fields, and demonstrate how people from all backgrounds can become scientists – in fact the more diverse the better!

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