

П				

Below are a collection of student profiles from past students who have gone on to study in the fields design, engineering, and apprenticeships.

You will find them colour coded to assist browsing, but we suggest searching using 'Ctrl+f' in your broswer and looking up key words you are interested in as there will be plenty of overlap.



ENGINEERING



# **ROWAN MYALL**



ROUTE:	UNIVERSITY
PLACE OF STUDY:	LOUGHBOROUGH UNIVERSITY
LEFT LRGS:	2019
PLACE OF WORK:	DESIGN ENGINEER AT G&H ITL
	KENT
EMAIL:	ROWAN.MYALL@GMAIL.COM
SOCIAL MEDIA:	HTTPS://WWW.BEHANCE.NET/GALLERY/181749229/ROWAN-MYALL-PORTFOLIO-2023



I'd heard great things about Loughborough's Product Design course, and I loved the design school building when I visited.

When I was 17, I had no idea what kind of designer I wanted to be. I didn't know which industry I wanted to work in, or which companies were offering the kind of work I was interested in, and I didn't fully understand how to figure that out for myself. University was great because it exposed me to lots of different skills, industries, and companies. That variety helped me work out what I was best at, where my skills would be useful, and what kinds of companies I wanted to work for. I think I could tell at the time that that's what the course could offer me.

"So far, the work has been a good balance of concept work, CAD, 3D printing, assembling and testing devices and jigs, and a little bit of paperwork and documentation."



#### WOULD YOU CHOOSE IT AGAIN OR DO ANYTHING DIFFERENTLY? WOULD YOU RECOMMEND IT?

I don't think there's much I'd go back and do differently – although maybe I would've tried more new things early on in my first year if I'd known Coronavirus was coming to cut the year short.

Also, on my very first piece of design coursework, I tried to do significant bits of it the night before the deadline – mostly working backwards from the design I'd proposed to add loads of fake development work to what I was submitting. I'm grateful that I tried that early and then immediately learned my lesson.

### "After A levels, do a summer placement at a company you're interested in if you can find one, even if it's just for a week. Take any opportunity available to get professional experience."

#### WHAT'S NEXT FOR YOUR CAREER?

I'm planning on staying here at G&H | ITL for a good few years. My course at Loughborough was accredited by the IED, and I'm interested in eventually pursuing chartership.

#### HOW HAS EDUCATION POST LRGS BEEN?

It's been great. The live brief work I had access to at university was especially useful for my design education, I think that was probably the highlight of my time there.

### WHAT DOES A TYPICAL DAY LOOK LIKE FOR YOU AT THE MOMENT?

G&H | ITL is a medical and lab equipment company with in-house assembly, and that gives me the chance to work on some really interesting products that also have a positive impact on people's lives. So far, the work has been a good balance of concept work, CAD, 3D printing, assembling and testing devices and jigs, and a little bit of paperwork and documentation.

### FAVOURITE THING YOU HAVE DONE OR ACHIEVED SINCE A-LEVELS?

Going on study exchange to the TU Delft in the Netherlands for 6 months in my third year was amazing. If you get an opportunity to do something similar, do it. Learning how people in other countries approach design (or engineering, or any other discipline) and education is so valuable.

I was also very proud to be at New Designers 2023 (but being on your feet all day for four days in a row can be pretty gruelling!)

#### **PLACEMENT ADVICE/RECOMMENDATIONS**

I was lucky in that it went quite smoothly for me. I got in touch with the company I'm working for now at my degree show. I was very tempted to take a 2-3 month break after finishing my degree and not looking at job applications until afterwards, but if I'd done that, I would've missed that year's hiring cycle, and it could've ended up being a much longer break than I would've liked. My advice would be to stick with applications, get an offer, and then take a break before your start date. I met the company in June, had my interview in July, and then started in late September, which was a good way of doing things.

I'd also say be prepared to be flexible and take a job outside regions of the UK you're familiar with, especially with your first job when you're getting your foot in the door. I'd never been to Kent before I took this job, but coming here was definitely the right thing to do.

After A levels, do a summer placement at a company you're interested in if you can find one, even if it's just for a week. Take any opportunity available to get professional experience.

At university, design placements tend to be advertised later in the academic year compared to other subjects, in January/February of second year rather than at the start of second year, because this gives students time to get portfolios of their work together. Don't be disheartened if friends on other courses have placements sorted by Christmas and you don't.

You'll get a lot of benefit from getting professional experience as part of a small design team, or at a company that manufactures products internally. At a small company, you'll get to do a lot of varied work across the whole design process. At a company with internal manufacturing, or with strong links to manufacturing, you'll be forced to learn how to design parts that are actually manufacturable. In both cases, you'll almost certainly learn much more than if you were just doing CAD all year, or just rendering all year, or designing nice-looking products that can't actually be made.

#### IF YOU WERE TO DO SIXTH FORM AGAIN, WHAT **WOULD YOU DO THE SAME/DIFFERENTLY?**

I would've followed my own boring advice about sleep and exercise more closely. Looking back, not doing offsite games was very beneficial for me, because I know I wouldn't have taken the time to be active if I wasn't being forced into it.

I was generally ok at handing things in on time in Sixth Form, but if I hadn't been, the first term of university would've been a shock. I remember Mr Lemon telling us that if you hand something in even one second late at university, you'll get a zero, and thinking: "that can't be true, there's got to be more to it than that." Outside of exceptional circumstances, that is 100% true.

#### WHAT ADVICE DO **YOU HAVE FOR OUR GCSE/A-LEVEL STUDENTS?**

It's really boring advice, but honestly, it's the most important advice I can give: get eight hours of sleep a night, and do some exercise every day. Over the last 8 years, sometimes I've followed that advice, and sometimes I haven't. I've always been better at learning and designing when I've followed it, and significantly less stressed as well.





Creative Confidence. David Kelly and Tom Kelly

How Big Things Get Done, Bent Flyvbjerg and Dan Gardner

The Design of Everyday Things, Donald Norman

Design for the Real World, Victor Papanek

Product Design Styling, Peter Dabbs

#### Early concept development.



#### Later concept development.



#### **ADVICE FOR THOSE STARTING NEA?**

Get comfortable discussing and presenting your work without notes, especially to strangers and experts. Take any opportunities you can find to do this. You'll become a much more confident designer, and you'll get useful advice at a faster rate than someone who can't talk about their work.

Get comfortable listening to and considering criticism of your work. In product design, you'll easily get very attached to the work you've produced. You might find you're quick to conflate criticism of your work with criticism of yourself, which is detrimental when someone might be suggesting a great new angle to explore with your design. If a person says something that seems critical of your work, try and take it as neutrally as possible. Then, spend some time investigating that person's suggestion thoroughly. You'll either find "ah, that was an interesting idea, but I can't get it to work because of these other constraints," or "wow, that's a promising idea, I never would've thought of that," and in either case, you've turned hearing something difficult into something valuable (and something rewardable when your coursework gets marked!)

Back up all of your work frequently (never less than once a week). Scan all your sketches, properly organise photographs you take of your work, keep old versions of CAD files. Become a bit of a data hoarder for your project – it'll help if you lose your work, or if you need to retrace why you made a decision, or if you want to add the work you're doing now into your public portfolio in two year's time. Keep your NEA portfolio / design history up to date all the time, and give your files proper names. If you name your files using the YYYY-MM-DD date format and then the filename, everything stays in order of most to least recent when you sort alphabetically, which is pretty useful. Give your CAD files version numbers and proper names as well.





Don't worry about trying to share your work online as you're doing it. A little bit at A Level, and more often at uni, other students would be sharing their work to an Instagram account dedicated to their design work. This can be a mistake for two reasons – firstly, if you come up with a million-pound idea, you can't patent it anymore if you've already put it into the public domain, but more importantly, it can be a massive distraction for you. It can replace the fulfilment of completing work with the fun of getting engagement on unfinished work. Broadly, you can be an influencer or a design student, but not both. Crack on with the work for now. You can still be thinking about how you might present your work as you're going along – that can sometimes be useful and motivating. But as I said before, keep your files organised, keep old sketches, and then go back and build an Instagrammable narrative once you're finished. Share and present your incomplete work in person, via Teams, or in university/apprenticeship/work experience applications only.

Learn how to add correct tolerances to your 3D prints so they fit properly straight off the bed – it'll save hours of sanding mechanisms down, and if you break a part last-minute, you can be confident that the reprint will work. On a well-calibrated machine, I find the 1-2-3 rule useful: 0.1mm for a press fit that won't separate, 0.2mm for a snap fit, and 0.3mm for a loose fit.

You'll probably reach a point in your project where something goes wrong – you'll realise too late that something you're proposing isn't feasible, or you'll find some new information that changes a lot of what you thought you knew about your project. It happened to me during my final year at university. I'd been designing a medical device to accommodate 100ml treatment volumes, and a month away from my first deadline, I realised the actual volume I needed to accommodate was 5ml. This meant that almost everything about my product had to change, and change quickly. When something similar happens to you, try your best not to panic, and don't jump for a solution right away. Evaluate the impact of the problem, work out what questions you need answered to get back on track, make a plan to find those answers, carry that plan out, and respond with design changes once you have a good understanding of what went wrong. Often, your product will end up much better after overcoming a hurdle like that – in my case, the designs I did after the change in treatment volume ended up being much smaller, more portable, and safer than the earlier ones.

Enter your work into the Triumph Design Awards. Spend time putting a good entry together. It's an amazing opportunity.

# **GREGOIRE SAUL**





Admittedly, I took the university route partly because I didn't explore the other options available to me.

#### WOULD YOU CHOOSE IT AGAIN OR DO ANYTHING DIFFERENTLY? WOULD YOU RECOMMEND IT?

I would choose the same route again and I would highly recommend it. However, I would suggest making sure you are aware of the other options available to you. University isn't for everyone and you can still get a degree through other means, i.e degree apprenticeships, or gain other relevant qualifications.



"As part of my degree I completed a year long placement for a design company in Amsterdam. This was a fantastic experience which really pushed me out of my comfort zone and helped me develop both professionally and personally."

"The application process can be tough and it's a steep learning curve. Don't be disheartened by rejections and don't be surprised if your first interview goes terribly mine did!"

#### HOW HAS EDUCATION POST LRGS BEEN?

I chose Loughborough Design School as it is regarded as one of the best in the country. Since graduating I feel fortunate looking back on the high level of teaching at the university and access to state of the art facilities.

### WHAT DOES A TYPICAL DAY LOOK LIKE FOR YOU AT THE MOMENT?

Throughout a design project I spend a lot of time: sketching concepts; modeling new products in CAD; reviewing ideas and designs with my team; presenting design work to business stakeholders; detailing CAD models to prepare products for manufacture; producing works drawings and manufacturing information; producing installation data; overseeing prototyping of new products; and much more. Our design projects can last as long as 12 months or more and so a typical day depends on which stage of the project we are at.

## FAVOURITE THING YOU HAVE DONE OR ACHIEVED SINCE A-LEVELS?

As part of my degree I completed a year long placement for a design company in Amsterdam. This was a fantastic experience which really pushed me out of my comfort zone and helped me develop both professionally and personally. Joint with that would be starting my own poster business, Daft Cat Studio, which I run in my spare time.

#### WHAT'S NEXT FOR YOUR CAREER?

I love working as a designer and being able to be creative every day. But, ultimately, I would like to run my own full-time business one day.

#### **PLACEMENT ADVICE/RECOMMENDATIONS**

Be proactive in seeking opportunities. Just because a placement isn't advertised doesn't mean a business isn't willing to take on a placement student.

#### WHAT ADVICE DO YOU HAVE FOR OUR **GCSE/A-LEVEL STUDENTS?**

Be proactive in seeking out opportunities for learning, internships and work, and take every single opportunity that comes your way - especially ones which are out of your comfort zone.

#### **ADVICE FOR THOSE STARTING NEA?**

Don't leave it to the last minute. Start early and get as much feedback as you can from teachers and peers to maximise the learning you will get out of your work.

#### IF YOU WERE TO DO SIXTH FORM AGAIN, WHAT WOULD YOU DO THE SAME/DIFFERENTLY?

I would perhaps focus slightly more on my studying if I could do it again, but don't underestimate the value of extra curricular activities such as sport and part time work. When applying to your first full-time job employers value part time jobs and extra curricular interests enormously.

### "Take every single opportunity that comes your way - especially ones which are out of your comfort zone."

# **GEORGE HORSFIELD**



ROUTE:	APPRENTICESHIP
PLACE OF STUDY:	ROLLS-ROYCE/UNI OF DERBY
LEFT LRGS:	2019
PLACE OF WORK:	ROLLS-ROYCE (CIVIL AEROSPACE) DIGITAL METHODS IN TURBINE DESIGN
EMAIL:	GEORGE.HORSFIELD@ROLL-ROYCE.COM
LINKEDIN:	GEORGE HORSFIELD

### WHAT MADE YOU CHOOSE THE ROUTE YOU CHOOSE?

I chose an apprenticeship as I was quite keen on the idea of having my university degree paid for and earning whilst I was learning. Another major advantage of going down the apprenticeship route is the first-hand experience you get within your chosen industry. "Another major advantage of going down the apprenticeship route is the first-hand experience you get within your chosen industry."



#### WOULD YOU CHOOSE IT AGAIN OR DO ANYTHING DIFFERENTLY? WOULD YOU RECOMMEND IT?

I would 100% do an apprenticeship again and recommend anyone to at least consider if it's for them. The only thing I would do differently is spend more time researching the other options available to me, as I didn't really put as much effort as I should have done into a backup plan.

### WHAT DOES A TYPICAL DAY LOOK LIKE FOR YOU AT THE MOMENT?

Now that I have (very nearly) finished my apprenticeship, I have been aligned to the Digital Methods team within Turbines Design in Rolls-Royce.

My time is split between a number projects, the two main ones are further developing the automated tool for assisting with instrumentation placement, automating data collection and sorting on large civil aerospace engine component models. For this project, I spend time developing code, testing it on engine component models, and gathering requirements and feedback on the tool from the technical customer.

The other main project is based around creating design standards for Model Based Definition (MBD) of turbine blades, at a level which allows manufacturing and inspection engineers to automate their inspection and validation routines. As it's well within its infancy, this task currently involves a lot of investigative work, like capturing data about how turbine blades are currently defined, and what inspection capabilities the various manufacturing plants have. I'm using all the information from manufacturing and design departments now to create the new blade definition standards

#### HOW HAS EDUCATION POST LRGS BEEN?

Full on but worth it – since leaving LRGS, I took on an apprenticeship at Rolls-Royce which involved doing a Level 2 NVQ in Aerospace and Aviation Engineering, followed by a level 4 NVQ in Engineering and Advanced Manufacturing alongside doing a part time bachelor's degree in Mechanical Engineering and Electronics, all balanced around working full time in various engineering placements throughout Rolls-Royce. The most valuable thing I got out of the apprenticeship is the workplace experience from the different placements I did throughout the business.

It surprised me how little university prepared me for doing actual work – you can only fit so much knowledge and understanding into a 12-week module, and so you realistically only get a flavour of the engineering methods and principals involved in coming up with solutions to engineering problems. But that's just my experience.

Working on longer term, live projects with other experienced engineers within Rolls-Royce opened my eyes to some of the incredible and advanced engineering that goes on, whilst also showing me how to act in a professional environment but keeping work enjoyable and fun.

"It is a useful skill to have in life to be able to work on something you don't want to do – because I guarantee it will happen." "Doing this also demonstrates good time management skills, which will be a useful example to touch on in an interview."

### FAVOURITE THING SINCE A-LEVELS?

Academically, my favourite thing I've achieved is since A-levels is creating a digital tool to assist with geometry selection and automating data collection for instrumentation placement on large civil aerospace engines. The tool is calculated to save upwards of £100,000 across each engine project, and I was able to use this as a research project for my dissertation of which I received a 1st.

#### WHAT'S NEXT FOR YOUR CAREER?

My future plans include finishing my apprenticeship, and then working in the Digital Methods team for a few more years at least, developing my coding and automation skills.

### HOW WAS THE JOB APPLICATION PROCESS? ANY ADVICE?

The application process can be a very unnerving and competitive process to go through. It helps to be as prepared as possible when applying, so definitely read up about where you are applying to and the role that you are applying for.

Have a good understanding of the products or services that the company you are applying for provides, and how you will contribute towards their goals as part of your role.

Being able to confidently speak about your experiences and how you have developed certain skills will help ease some of the pressure of an interview. This will come from practice so do a couple of mock interviews, ask for feedback and make changes accordingly.

"Another major advantage of going down the apprenticeship route is the first-hand experience you get within your chosen industry."

"The most valuable thing I got out of the apprenticeship is the workplace experience from the different placements I did throughout the business."

#### **FAVOURITE THING YOU HAVE DONE OR ACHIEVED**

#### **PLACEMENT ADVICE/RECOMMENDATIONS**

Don't be afraid to ask questions – this is one thing I learned as an apprentice, as you are still in training or education you are not expected to know all the answers.

Being honest with yourself and other people will help you progress faster whether that be asking for support when needed or admitting mistakes when you make them. It is completely fine to make mistakes, everyone makes them. You just need to be able to identify them and speak up when you do, as you will learn the most from the mistakes you make.

"Don't be afraid to ask questions – this is one thing I learned as an apprentice, as you are still in training or education you are not expected to know all the answers."

## WHAT ADVICE DO YOU HAVE FOR OUR GCSE/A-LEVEL STUDENTS?

It sounds quite cliché but... Find what something you truly enjoy doing, and work towards that. If you enjoy it, it wont feel like work. There is almost no point in going into an area of work that you don't enjoy. (However it is a useful skill to have in life to be able to work on something you don't want to do – because I guarantee it will happen).

#### **ADVICE FOR THOSE STARTING NEA?**

My only advice would be to avoid the mistake I made, which was leaving thigns until last minute. Create a rough plan of when you expect to finish work towards NEA and try to stick to it - small delays may happen here and there but if you keep a steady stream of work going towards coursework then you'll avoid doing loads of last minute cramming. Doing this also demonstrates good time management skills, which will be a useful example to touch on in an interview.

## IF YOU WERE TO DO SIXTH FORM AGAIN, WHAT WOULD YOU DO THE SAME/DIFFERENTLY?

I probably wouldn't change anything that I did at sixth form – I picked three subjects I genuinely enjoyed doing, and it led me to where I am today.