

2023/24

# Saying Goodbye to our Year in Industry Students



## Ethan Noulton | University of Sheffield Year in Industry Placement, Production Engineering

During my placement, I have been lucky enough to get involved in several types of projects in the production engineering department. From supporting our manufacturers to designing and building jigs and machines to aid assembly. I have improved my design, technical and communication skills by assisting with firmware changes, component dimensions, always asking for help in areas where I lack expertise. I am collaborating all my skills from this year into my current project - introducing the idea of automation into the assembly process for one of our new products.

The best thing about working compared to student life is the opportunity to apply academic and practical knowledge into real world projects. This makes the last few years of university feel worthwhile and brings satisfaction and improved understanding. Also having a routine, which will help me plan more effectively and dedicate time to tasks and assignments when I go back to university next year. Getting paid is always a bonus too!

In terms of my future career, I would like to work on prosthetics and biological aids and enhancements, as I have always found this rapidly developing field very interesting. Although this is a very different style of engineering, my experience at ITL has enabled me to learn a lot about research engineering and the professional field. It has also helped build my confidence in prototyping and designing, and my people-skills working with various departments.

At the start of the placement, my main goals were to help design jigs or machines which can be used to aid production in the long-term and design and introduce automation onto the shopfloor, which the project work I have been involved in has allowed. I also wanted to improve my professional and communication skills which I have achieved whilst sharing ideas and results to colleagues, heads of departments and the board of directors. I believe that as my placement comes to an end, I have met all these goals, and ITL has been a supporting environment to do so.

In terms of my future career, I would like to continue with Mechatronic Engineering, using my knowledge of mechanical, electrical and computer science concepts. At yet, I am not sure what type of mechatronics or robotics I will focus on, but I am sure the skills I will learn at ITL will boost my confidence in whichever profession I choose.



**Csaba Grill | University of Manchester**  
**Electronics Design Engineer Placement Student, Electronics**

During my placement at Innovative Technology, I have worked on several projects including developing and testing electronic circuits for new payment systems, collaborating with the R&D team to troubleshoot and optimise existing products and conducting prototype testing and validation for product improvements. These projects have enabled me to apply theoretical knowledge in electronics, advance my problem solving and project management skills and highlight the importance of teamwork and communication in a professional setting. There are lots of benefits of working in contrast to being a student including the financial independence it brings, earning a salary and managing my personal finances over the past year has been useful and has helped me to progress financially. Another key benefit of work life is the ability to learn from the expertise of my peers and work with experienced professionals. I have also gained valuable insights into industry practices and standards.

My aspirations from the placement have been exceeded. I have gained invaluable experience, enhanced my technical skills, and established a professional network. While my primary goals have been achieved, the experience also broadened my perspective on potential career paths, making me more open to various opportunities within the electronics industry.

This experience at ITL has been instrumental in shaping my future career and I now have a clearer vision of my career path. It has provided me with valuable industry knowledge, practical skills, a better understanding of the electronics field, confidence in my abilities and a solid foundation to build my career upon. Initially, I was unsure about which specific area of electronics to pursue. However, my time at ITL has sparked a strong interest in embedded systems and product development.



**Penelope Broad | University of Manchester**  
**Computer Scientist Intern, Science**

I have spent the majority of my time at ITL working on developing new APIs and end of line testing. Both of these projects have required me to become much more skilled in Python than I was before I began my year in industry. During the year we have also adopted many new technologies as our projects have grown and I have enjoyed the challenge of trying to master these as I go. On top of the technical skills I have acquired, I have also spent a lot of time building and understanding dataset training. In order to do this, I've had to interact with lots of people from other teams across the company and so I feel that I've also really improved my communication skills, particularly in a professional environment.

As a student, you're only working towards one thing – individual grades and progression. It's nice that when you're working in a business, you and your colleagues are all striving to achieve

the same goals and so collaboration is highly encouraged and productive. ITL has an amazing community spirit. Everyone is friendly, always smiling and saying hello when you pass. On top of this, everyone in my team is keen to help me with my own tasks and are completely invested in my learning and progression. I have definitely improved in both my programming and problem-solving skills so much more in this year than I would have at university. This is down to all the opportunities I've been given to get hands on and dive straight into the deep end with my tasks. On a more trivial note, it is also very nice having a fully equipped kitchen – really going to miss this when eating my lunches in the uni library next year!

I have learnt so much over the short period I've been here and know I'm going to use every bit of knowledge I've gained all the time. The skills I have gained in teamwork and communication will undoubtedly assist me for the rest of my life. All of these things will not only be useful in my future career, but also in my final year of university – particularly for my dissertation.

The main aspiration for my placement was to discover whether I liked the job role before I committed to the career. I have accomplished much more than this. Not only has it confirmed that I enjoy software development, I have also improved my technical skills such as programming. Before I began my placement, I was intrigued to find out how the techniques I was learning at university and applying to my coursework could be used in a professional setting and on a larger code base. It has been extremely useful getting to understand the wider applications of such technical skills and technologies.

Working at ITL has definitely helped me define my future career. When I graduate from university, I would like to carry on being a software engineer. Throughout my education I have considered careers in software development, cyber security and finance. I chose to do this placement as I liked my software engineering modules at university and my time at ITL has affirmed that this is a career that I could enjoy and hopefully do well in.



### **Jakub Bronowicki | University of Bath Work Placement, Data Science**

I've worked on many projects in the ITL Data Science department for both note and coin validators. I have spent my time researching, experimenting with, and implementing a range of data science and machine learning techniques to reinforce existing classification of bank notes and coins.

Working on these tasks has enabled me to see how projects are managed in the real world, how to maintain good code quality, and the importance of teamwork during project work.

One thing I enjoy about working compared to studying is the schedule and not doing work at weekends. I have found working less stressful than student life, more 9-5 with no studying in the evenings and more time to socialise. I have also appreciated working on long-term projects and seeing how they evolve over time, putting into action the theory I have learnt at university into a working environment to solve real issues, and progress my data science techniques.

When I joined ITL for my placement I wanted to learn more about how software, and

specifically how machine learning projects, are developed and managed in the real world. I also wanted to improve my programming skills and learn how to produce good code quality. I have achieved these and much more.

My experience at ITL has also confirmed that I would like to stay on the data science career path, working in software engineering in the future.



**Michael Papantoniou | University of Bath  
Work Placement, Data Science**

I have spent most of my time on a project which involves researching , developing and implementing machine learning algorithms to develop a product classification. This task has greatly expanded my knowledge of computer science and has enabled me to see algorithms fully working in a product out in the field.

The best thing about working life is that it allows for more stress-free spare time with a chance to focus on other aspects of life. Whereas being a student, the stress of deadlines follows you even throughout the weekend! I saw joining a research role at ITL as an opportunity to gain experience in a field I knew I wanted to work in, as well as giving me the chance to explore ideas and concepts independently. Before starting, I didn't have much experience in standard machine learning practices which made me feel nervous about time after uni.

One of my targets during my placement was to develop my knowledge and capability so that I become more confident and efficient at creating machine learning models. I've definitely achieved this, and working at ITL has encouraged confidence in my data science skills overall. Even small tips and tricks learned here will be useful throughout my career. Now I can leave university and apply this year-long experience into my post-graduate job, rather than starting fresh.

Now at the end of my placement, I can say that my overall enjoyment, coupled with an eagerness to add more concepts to my data science toolbox, has proven to me that advancing a career in this field is the right choice. This placement has not only developed my confidence and given me a broader knowledge base, but it has given me a much brighter outlook on a post-graduate job and future career.



**Benjamin Eichhofer | University of Manchester  
Software Developer Placement Student, AI Biometrics Department**

My primary role has been developing and maintaining an app which pairs with our age check devices on a network to inform staff when someone underage is detected. It allows staff to respond via the app to alerts and automatically generate detection logs. This project has required me to learn a variety of new programming languages, technologies, and software design principles.

There are a few things I prefer about working as against student life. I enjoy having more control over my free time, having the ability to choose when to have time off rather than having it predetermined by my university. It's nice to be able to actually enjoy my time off without needing to study or work, for example at Christmas time I usually have exams as soon as I return.

In terms of my aspirations from this placement, I had hoped to gain insight into the industry and get experience working on real products within a team. I feel these aspirations have been met, especially having experience working on a new product from design to seeing it trialled in several locations across the UK and EU. This has resulted in me being able to obtain and respond to customer feedback on the work I have undertaken.

My time here has been extremely valuable, whilst I haven't been directly responsible for developing the machine learning algorithms, we have regular meetings to discuss new research and technologies that can be used to continually improve our products. This gives me good insight into how AI technology is used in a production environment, gaining work experience like this before graduating from university is invaluable. Whilst my future career path isn't set in stone, my time at ITL has confirmed that this is the correct field for me. My plan remains largely the same as it was prior to my placement, I would like to stay in a software development or similar role.