



## A warm welcome to our Year in industry students 2022/23



**Theshmehan Makeswaran**  
**Year in Industry Data Scientist**

I am studying Computer Science with Artificial Intelligence (BSc) at The University of Nottingham. I finished my second year and started working at ITL in the summer. I was delighted to be invited to ITL's 30 years in business celebrations in Barcelona when I first joined - very lucky to be part of such a great company for my first full-time job! I moved to Oldham so that I could be close to work which means I have only a 20-minute leisurely walk to work every morning with no traffic to worry about. Having my own place is a bonus and I feel like I am settling into the local area well.

I am working for the Data Science team in the Research Department and in the short time I have been with ITL, I have been involved in several projects. These include, helping the Computer Science team improve the training pipeline, investigating the efficacy of various tests we use on our validators as well as helping to create a data sanitisation tool to ensure our classifiers can continue to be as accurate as possible.

Working life presents a different challenge from student life. Although work can be more rigid in some ways as it's more structured, it is also more collaborative, broadening opportunities to learn from colleagues. I am also gaining experience managing a work/life balance; with plenty of free weekends which would normally be spent studying back at university. During my one-year placement I hope to solidify my skills in programming, gain a thorough understanding of writing code that is both maintainable and adheres to proper software practice, as well as picking up valuable Data Science techniques to use in the future. Although my degree is in Computer Science, since joining ITL I think my career path may change as my interest in becoming a Data Scientist grows.



**Zakee Akram**  
**ICU Software Placement**

I am currently studying a degree in Computer Science BSc (Hons) at Sheffield Hallam University which includes a year in industry. My placement at ITL began after I completed my second year, so I will return and complete my third and final year following this work experience. This is my first time working in a technical field with a large company and I am settling into the full-time working life well! I live quite close to the office so my commute is easy, plus living locally means I already know the area well.

I am working in the biometrics division of ITL. My current responsibilities include improving and creating features for their several products which can be used for age estimation and access control. My role is specifically focussing on computer vision, spoof detection and OCR (Optical Character Recognition).

I am particularly enjoying being able to get creative and apply theory learnt at university into practice using complex leading-edge technology to really make a difference. Working with a qualified team of individuals from different technical backgrounds is also great for building my knowledge. During my time at ITL I really hope to strengthen my skills in data science and software development and gain a unique experience which will stand me out from the crowd when I start to apply for post graduate positions. In the future I would like to do a PhD or master's degree and then enter the tech industry and work in research and development.



**Sadikul Islam**  
**Electronic Design Engineer Placement**

I joined Innovative this summer for my year work placement whilst studying Mechatronic Engineering at the University of Manchester.

This is the third year of my degree and although I have done some work experience in the past, this is the first time I have been in full-time employment. I live in a neighbouring town, which made this placement in Oldham ideal for me. My commute is easy, with just a short drive to work each day.

I am employed in the Electronics Department within the Development team and currently working on component changes for several ITL products. Due to the worldwide shortage of components, several components are now unavailable, so we are busy ensuring we have alternatives ready.

Working differs from student life as it requires a more consistent, regular throughput of work, compared to student life where you can work any time or at the weekends. This is useful in a way as it allows you to have a more organised daily workload, however it can also be difficult to adjust to. During my placement, I hope to build relevant industrial experience, which will further my understanding in the field of Electronics which I can use both when I return for my final year at university and when I apply for jobs at the end of my degree. In terms of my future career prospects, I hope to find a role which is Mechatronics/ Robotics based. This role will heavily involve electronics while also including mechanical and computer science aspects, which is why I think this placement will be beneficial for me personally and for my profession.



**Jacob Cummins**  
**Year in Industry Computer Scientist**

I am currently in the fourth year of study doing my master's degree in Artificial Intelligence and Computer Science MComp, at the University of Sheffield. I moved from Sheffield to Manchester in the summer to start my first full-time employment position with ITL. I'm settling into living in Manchester well and loving the social vibe of the city. Plus, Manchester provides easy access to the Peak District National Park where I have enjoyed climbing a few times. The commute to work is good. It's my first-time driving daily and luckily the M60 is usually traffic free. Even when the traffic is occasionally heavy, the flex system that ITL offers helps relieve the stress, plus being able to work from home also helps reduce the cost of commuting.

Working in the Data Science Department alongside several young team members means I have a lot in common and I enjoy meeting up with colleagues outside work hours for various social activities. Currently the department is overhauling their bank note validator training system to improve robustness, transparency and to make future research and development quicker and easier. I joined the team at the start of this project, so my time has been spent capturing the requirements of this system, implementing these requirements, and deploying them for usage. This is a great project to work on as a placement student as I get to understand the full depth of the system, building it from the ground up.

Being able to work on one big project over an extended period rather than having to constantly swap between small trivial projects like I have to at uni is rewarding. This allows me to see the code I write mature, which is both helpful in understanding the good and bad parts of my code. During my time at ITL I hope to expand my knowledge of machine learning algorithms by seeing how they can be implemented in actual production systems. I also plan to develop my knowledge of design principles and how they affect the team I'm working on to allow me to be a more dependable team member.

Regarding my future career, ITL has helped me realise that I want to remain in Data Science / the Software Engineering side, of implementing machine learning systems. Also, previously a PHD seemed an impossibility but after working alongside other people with high level qualifications, I understand the practical application of studying past a masters, so this is now also a path I will investigate further.