

Work-Based Learning Reflection Report for CN5009

BSc Hons Data Science and AI

CN5009: Mental Wealth; Professional Life 2 (Computing in Practice)

Shyam Vijay Jagani

2611208

Group No.: 1

University of East London

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1 Introduction

I completed a 70-hour work-based learning placement as an IT Technician at the University Of East London. My responsibilities encompassed essential IT support tasks, beginning with updating software on university computers using the software centre and manually for problematic PCs. I gained experience troubleshooting update issues, including identifying why some PCs failed to update initially. A significant part of my role involved managing aspects of Windows servers and clients. This included working to link client PCs to a server workgroup, which involved troubleshooting and ultimately reinstalling Windows 10 Pro on a client machine to achieve compatibility. I also gained practical experience adding users to an Ubuntu server.

Additionally, I worked extensively with the EON-XR application. This involved exploring its interface, learning to integrate 360-degree images as immersive backgrounds, adding interactive elements such as labels and portals, and testing the user experience within created workspaces. I also participated in taking 360 photos for potential use and creating Extended-Reality building tours of the RDCS building using provided images, focusing on areas like Room 1.31, Level 2, Level 1 and reception, and the area outside the reception including the Fulvio Arches.

As a student pursuing a degree in Data Science and AI, I am keenly focused on entering the technology industry. This placement was specifically chosen as it offered exposure to areas highly relevant to current industry standards, particularly the hands-on experience with software management, server interaction, and crucially, working with VR/XR technologies. To stay abreast of the evolving technological landscape, particularly the significant shift towards virtual and extended reality, I actively sought this opportunity to gain practical experience in VR/XR, which this role amply provided.

2 Reflection on 70hr Work-Based Learning (WBL) Placement

2.1 Summary of Key Learnings and Development Patterns

Across the 70 hours, a clear pattern of development is evident, moving from initial, more straightforward tasks to complex problem-solving and project-based work. Early on, the focus was on fundamental IT support, such as software updates and basic troubleshooting. This progressed to more complex system administration tasks involving Windows servers and clients, requiring significant troubleshooting and learning about network configurations. The final stage of the placement centered on utilizing the EON-XR platform for creating immersive experiences, demonstrating a shift towards applying technical skills in a more creative and project-oriented context.

2.2 Key learning points:

- Stage 1 (Weeks 1-2 - Jan 27-Feb 3): Gaining familiarity with the university's IT environment and standard procedures, learning about the software used, and understanding the importance of thoroughness in basic maintenance tasks. Initial exposure to troubleshooting basic software update issues.
- Stage 2 (Weeks 3-5 - Feb 3-Feb 6): Deep dive into server and client relationships, understanding workgroups, and the intricacies of operating system compatibility and installation. This stage highlighted the importance of correct specifications (e.g., Windows 10 Pro vs. Home) and persistent troubleshooting. Learning how to work in a team to solve technical problems and assigning roles for efficiency was also a key takeaway.
- Stage 3 (Weeks 6-10 - Feb 12-Mar 31): Focusing on the EON-XR platform, learning to navigate the interface, integrate media like 360 images, add interactive elements, and structure immersive experiences. This stage involved practical application of digital tools for content creation and understanding the user experience. The importance of preparation and having the right tools (like a tripod) for content capture was also learned.
- Stage 4 (Week 11 - Apr 7): Consolidating EON-XR skills by completing the project,

focusing on flow and context within the immersive environment. Learning to use external tools like image compressors for optimizing content was also a practical skill gained.

2.3 Challenges Faced and How They Were Overcome

Several technical challenges were encountered during the placement. Initially, some PCs had issues with software updates, which were overcome by revisiting them the next day and using manual update methods. A significant challenge was linking a Windows client PC to the server workgroup. This required extensive troubleshooting, including resetting and ultimately reinstalling the Windows client with the correct version (Windows 10 Pro instead of Home). This problem was overcome through persistence, consultation with teammates and the placement manager, and referring to external resources like YouTube tutorials. Another challenge was obtaining good quality 360 photos for the EON-XR project due to the lack of a tripod, which highlighted the importance of preparation and having the necessary equipment. Using pre-clicked photos provided by the placement manager allowed the project to move forward despite this. Finding options to add labels and interactive elements in EON-XR was also a challenge that was overcome by realizing the need for the desktop version of the application.

2.4 Specific Technical and Soft Skills Gained

- **Technical Skills:** Software updating and management (using Software Centre and manual methods), PC troubleshooting, Windows Server and Client administration (including workgroup configuration), Operating System installation (Windows 10 Home and Pro), Ubuntu Server user management, EON-XR platform usage (interface navigation, 360 image integration, adding interactive elements like annotations and portals, workspace creation), using image compression software, basic photography (with a 360 camera) and photo evaluation.
- **Soft Skills:** Teamwork and collaboration (consulting with teammates, assigning roles), Problem-solving (identifying issues, strategizing solutions, persistence in troubleshooting), Communication (consulting with placement manager and teammates), Patience (when facing technical difficulties and having to redo work), Attentiveness (learning from mistakes like incorrect OS installation), Evaluating physical spaces and their potential for virtual representation.

2.5 Improvement of Knowledge in Computing Fields

The placement provided practical experience that enhanced knowledge in several computing areas:

- **Computer Science/Computing for Business:** Gaining hands-on experience with operating system installation, configuration, and troubleshooting provided a deeper understanding of fundamental computing principles. Working with server and client relationships directly relates to how computing infrastructure functions in a business environment. The EON-XR work, involving creating interactive digital experiences, touches upon principles of digital content creation and user interface design relevant to computing for business.
- **Networking:** The challenge of linking client PCs to a server workgroup provided practical insight into basic networking concepts and configurations.
- **AR/Extended Reality:** Extensive work with the EON-XR platform directly contributed to understanding and practical skills in creating extended reality experiences, a field closely related to AI and future computing interfaces.

2.6 Comparison of Expectations vs. Actual Experiences

The actual experience moved beyond basic IT support to include more involved system administration and immersive technology project work. The initial expectations were a focus on software updates and IT support, but

the challenges with server/client configuration and the significant time spent on the EON-XR project, including content creation, provided a richer and more varied experience than initially anticipated. Learning to install Windows on already installed hardware and solving problems in different OS were some unforeseen learning opportunities that arose.

2.7 Key Skills for Future Career and Areas for Development

- **Key Skills Possessed:** The placement has equipped me with practical technical skills in IT support, system administration basics, troubleshooting, and specific proficiency in the EON-XR platform for creating immersive experiences. Developed soft skills in teamwork, problem-solving, and communication are also crucial for a future career in tech.
- **Skills Still Needed:** While the logs highlight skills gained, they do not explicitly detail skills still needing development. However, based on the challenges faced, further development in advanced networking configurations, more in-depth server administration, and potentially scripting or automation for IT tasks could be beneficial. Improving photography skills for VR/XR content capture was implicitly identified as an area for growth.
- **Impact on Career Goals:** This 70-hour WBL experience has significantly reinforced my career goals in the tech industry, particularly my interest in areas like AI and extended reality. The hands-on experience with EON-XR provided valuable exposure to a cutting-edge field that aligns with the “current shift in tech”. The practical IT skills gained also provide a solid foundation for various roles within the technology sector.

2.8 Digital Tools, Platforms, and Technologies.

During the placement, I utilized several digital tools and technologies:

- **Software Centre:** Used for updating software on university PCs.
- **Windows:** Worked extensively with Windows client operating systems (Windows 10 Home and Pro) and interacted with a Windows server.
- **Ubuntu:** Gained experience adding users to an Ubuntu server. -**EON-XR:** A key platform used for exploring interfaces, integrating 360 images, adding interactive elements (annotations, portals), and creating immersive workspaces. Both the web and desktop versions were used.
- **Image Size Reducer:** An open-source software used to optimize image files for the EON-XR platform.
- **360 Camera:** Used for capturing panoramic photos for potential integration into the EON-XR project.
- **YouTube:** Used as an external resource for tutorials and guidance on using the EON-XR platform and troubleshooting technical issues.

2.9 Ethical, Legal Considerations & Confidentiality Statement.

During this work-based learning placement at the University Of East London, I was mindful of ethical considerations, legal requirements, and the importance of confidentiality and data protection. While the tasks primarily involved managing university IT resources and working with general data within the university’s systems, I understood the need to handle any information encountered with professionalism and discretion. This included adhering to principles aligned with data protection laws such as GDPR, respecting confidentiality regarding university systems and projects, and upholding professional standards akin to those outlined in the BCS Code of Conduct. Although I did not work with sensitive personal or confidential client data requiring anonymization in this documentation, I maintained an awareness of these principles throughout the placement.

3 Importance of Work-Based Learning Reflection Logs

Reflection logs are undeniably crucial in work-based learning (WBL) as they transform experiences into tangible learning opportunities, significantly contributing to professional development. Engaging in reflective writing, as encouraged by the Week 2 tutorial materials, allows for a structured process of reviewing activities, understanding outcomes, and identifying areas for growth. This systematic approach goes beyond simply documenting tasks; it involves critical analysis of experiences, feedback received, and the moments where significant learning occurred.

Recording daily or weekly experiences in the reflection logs provided a vital framework for tracking progress throughout the 70-hour placement. Each entry, detailing the activity, actions taken, and the result or reflection, served as a timestamp of my journey as an IT Technician. This chronological record allowed me to see the progression from initial tasks like software updates to more complex challenges such as configuring Windows clients to join a server workgroup and developing immersive experiences in EON-XR. Reviewing these entries helped solidify the skills gained and provided a clear picture of the breadth of tasks undertaken.

Furthermore, the act of reflecting on challenges faced, such as the difficulties encountered when trying to link a client PC to the server or obtaining suitable photos for the EON-XR project, was instrumental in identifying skill gaps. The logs capture not just the problems but also the actions taken to overcome them, like consulting with teammates and the placement manager, and seeking external resources like YouTube tutorials. This process of documenting challenges and solutions highlighted areas where my knowledge or initial approach was insufficient, prompting a more focused effort to acquire the necessary skills and information.

The reflection logs also influenced my learning strategies and professional growth by encouraging a proactive approach to problem-solving. Each reflection prompted consideration of what was learned and how it would be practiced or applied in the future. This iterative process of action, reflection, and planning for future application is a core tenet of reflective practice. By documenting instances where different approaches were needed or where seeking help was beneficial, the logs reinforced the importance of adaptability, persistence, and leveraging available resources – key attributes for professional growth in the tech industry. The detailed accounts of working with specific technologies like EON-XR allowed for a deeper understanding of their functionalities and potential applications, directly influencing my professional interests and skill development in extended reality.

In essence, the reflection logs transformed the work-based learning experience from a series of tasks into a structured learning journey. By consistently recording experiences, feedback, and moments of insight, the logs facilitated self-assessment, skill development, and a clearer understanding of my capabilities and areas requiring further attention, aligning with the principles of using reflective writing for professional development.

4 Evidence of Work-Based Learning Reflection Logs

CN5009 Computing in Practice/CN6007 Work Based Learning Academic Year 2024-25

Reflective Log – Work Experience

Your Details (Student, Please fill in full)				Type of Placement (Student, Please X)			
Name	Shyam Vijay Jagani			Degree Programme:	Type: Student	Virtual	In-Person X
Student ID	2611208			BSc (Hons) Data Science & AI	Location: UEL Docklands Campus	External	Internal X Self-Sourced
Your Placement Details (Student, Please fill in full)							
Organisation Name:		University Of East London		Placement Manager Name:		Christopher Ok'onkwo	
Your Role Title:		IT Technician		Placement Manager Email/Phone:		c.okonkwo@uel.ac.uk	

Date	Start Time	End Time	Hours Worked Today	Activity Describe what you did. What were the circumstances? (Max 100 words per activity)	Actions Taken/ Skills Applied What actions did you take? Which skills did you apply? Did you require assistance from a colleague to complete this activity? (Max 100 words per activity)	Result and Reflection What did you learn from this activity? Did you acquire new skills/knowledge? How will you practise and apply what you have learnt? (Max 100 words per activity)
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27/01/25	12:00	14:00	2	<p>As I was on holiday during the first 2 weeks of the placement I had to complete what my team members did during those weeks too.</p> <p>I started with updating the software.</p> <p>Updated Software from software centre in the AVA Lab university PC.</p>	<p>Actions performed were to updated the software and check if all the existing software were all up to date.</p> <p>Logged in from the university student account and to manually updated the applications provided by the university using the software centre.</p> <p>Some PCs had issues with updating the software so, I left them and updated them the next day.</p>	<p>I gained knowledge about what all softwares the university uses and provides for students.</p> <p>Also, solving the problems that could arise when updating the pcs were done the next day.</p>
28/01/25	13:00	16:00	3	<p>Started working on the pcs that had problems before.</p> <p>Used manual updation method to install the software centre first and, them using the software to download the software and then update the softwares again</p>	<p>Actions performed were to add the software centre to the library of the pc. Check if all the pcs had required university software.</p> <p>Completed updating all the pcs, troubleshoot all the problems. Everything is up to date on the pcs.</p>	<p>I gained knowledge about how to troubleshoot problems that arise when updating the softwares.</p> <p>All the problems were solved toady and all the pcs wer successfully updated.</p>

30/01/25	11:00	16:00	5	<p>As I was away for 2 weeks, I <u>consulted</u> with Chris and was briefed by my teammates regarding the current development. We then proceeded to work on the windows server.</p>	<p>From Chris's feedback, we had to link the client windows pc to server windows pc.</p> <p>We tried to <u>removed</u> the client pc from the 'workgroup' group and troubleshoot adding it to 'group-b' group.</p> <p>We weren't successful in doing so at that time due to time constraints.</p>	<p>We decided to be equipped with more <u>knowledge</u> the next session and complete the task.</p>
03/02/25	12:00	14:00	2	<p>Due to last week's failure to add the windows client to the same workgroup, we had to reinstall the windows client in the <u>cpu</u>.</p>	<p>We tried resetting the windows client to no avail.</p> <p>So after a lot of troubleshooting and contemplating, we finally decided to remove the windows installation and add a new windows client to it.</p> <p>I was given the <u>task</u>, and installed windows 10 Home in the pc.</p>	<p>I learnt how to install windows in an already installed hardware and how to link it to the server.</p> <p>Tried linking it to the <u>ucl</u> intranet to no avail.</p>
04/02/25	13:00	16:00	3	<p>After Monday's windows 10 home installation, I realised that we had to install windows 10 pro and not home.</p> <p>My group members had the same problem before but they didn't notice this when I was installing my windows client.</p>	<p>Installation of wrong windows 10 edition was a huge issue and had to be reset again.</p> <p>So, <u>reinstalled</u> windows 10 Pro onto the client pc <u>in order</u> for it to work properly.</p> <p>Then we reconfigured the windows 10 pro installation and set it up to be linked with the windows server.</p>	<p>Learning opportunities were <u>that</u> windows 10 home does not allow for remote <u>desktop</u> connection to be done and many other small issues.</p> <p>My friends learnt to not assume things and to be attentive all the time.</p>
05/02/25	13:00	16:00	3	<p>After yesterday's mishap regarding the windows 10 installation. We finally got to <u>to</u> the problem where it all started: the workgroup!</p>	<p>After looking around for a bit, we decided to refer to external sources for answers.</p> <p>We looked at <u>youtube</u> for answers, we looked at other resources as well.</p> <p>We finally found out how to do it and added the client pc to the server group and network.</p>	<p>Added the client to the server pc successfully.</p> <p>We were also able to check the workgroup and confirm that we had successfully set up the windows client.</p>
06/02/25	11:00	16:00	5	<p>We showed our previous efforts to Chris to confirm if we had done it all properly.</p> <p>He then proceeded to check the windows client pc.</p> <p>We were then asked to add our own <u>user names</u> into the ubuntu server by Chris.</p>	<p>We started to add ourselves as users in the <u>linux</u> server.</p> <p>We then proceeded to log into the ubuntu server just to make sure the users have been added successfully.</p> <p>After completing this <u>step</u> we checked the systems again for any <u>inconsistencies</u> in the OS.</p> <p>Finally we showed it to <u>Chris</u> and he added his own user into the ubuntu pc and then told us that he will check everything in his own time.</p>	<p>This was a very good experience.</p> <p>We got to install, troubleshoot and solve problems in different OS.</p> <p>We learnt how to work in a team to solve a problem, how to assign different roles to different people to work more efficiently.</p>
12/02/25	13:00	16:00	3	<p>Used the <u>youtube</u> videos on EON-XR.</p> <p>Explored the EON-XR app while referencing a <u>youtube</u> guide on it.</p>	<p>Went through the EON-XR Interface to locate workspace creation tools.</p> <p>Explored the options for 360 image integration.</p> <p>Begin following the <u>youtube</u> video guide to understand the basics of 360 image implementation within EON-XR.</p>	<p>I gained skills in navigating through the platform. Started to understand and use 360 image and implement them.</p> <p>I will continue to build upon these skills in the next session.</p>

18/02/25	13:00	16:00	3	Continued working on the EON-XR app focusing on the integration of 360 images as immersive backgrounds. And adding interactive elements based on tutorials.	<p>Watched the youtube video to upload and implement image as immersive backgrounds in EON-XR.</p> <p>Watched EON-XR's tools to start adding interactive elements like labels to the 360 images.</p>	<p>I progressed in using EON-XR with 360 images successfully implementing them as backgrounds. I began adding interactive elements, focusing on labels, using guidance videos.</p> <p>I am developing skills to make workspaces more attractive.</p>
25/02/25	13:00	16:00	3	Completed watching the creation of an interactive workspace in EON-XR using 360 images including adding interactive elements and testing the user experience.	<p>I learned and applied skills like design, usability testing, quality assurance, end user focus and 360 image handling.</p> <p>I finished watching adding the interactive elements to the 360 workspace. Watched the testing of the workspaces quality to ensure proper interaction.</p>	<p>I finalized the EON-XR workspace with 360 images, incorporating interactive elements and testing it thoroughly. I gained a comprehensive understanding of creating immersive experience and improved my skills.</p>
10/03/25	12:00	16:30	4.5	<p>Today, we went to Chris to tell him that we had finished understanding the EON-XR app.</p> <p>He then proceeded to give us a 360 camera to take photos of rooms.</p>	<p>We were told to click photos of rooms 1.31 and other sub-rooms there.</p> <p>We proceeded to go there and start clicking the photos of the rooms.</p> <p>We were unable to get good photos due to a lack of a tri-pod.</p>	<p>Learned that to take photos we need a tri-pod to keep the camera still and have good quality photos.</p> <p>Understood the importance of research before starting a task.</p>
11/03/25	12:30	16:00	3.5	<p>We started with looking for a tri-pod, then we found one from one of our friends.</p> <p>Then, we clicked some more photos of other rooms in the AVA building.</p>	<p>We used these different pictures to check and use the ones we see are perfect for the task of making virtual room.</p> <p>We finalised the pictures and got ready for the next step to create a workspace.</p>	<p>Gained practical experience in evaluating physical spaces. Using their potential environment. I developed photography skills and skills to determine the best feed in using in XR projects.</p>
17/03/25	12:00	16:00	4	<p>As Chris told us to use the photos that he clicked himself instead to use the photos that we clicked.</p> <p>We deleted all our work. And used his.</p>	<p>We started to purge all the photos that we clicked and used the ones given to use by Chris.</p> <p>We started to go through those images and sorting and filtering them.</p> <p>We kept the ones that we think we will need and remove the others.</p>	<p>Learnt the importance of being patient. We shouldn't have deleted the old photos that were not needed.</p> <p>We learnt that the quality of the photos that we use can make a huge difference to the project.</p>
18/03/25	13:00	16:00	3	<p>Today, we started working on the project.</p> <p>We started with making a workspace and then adding the elements and images.</p>	<p>We couldn't find any options to add labels and interactive labels in the image.</p> <p>After some troubleshooting steps, we managed to find out that we had to have the desktop version of EON-XR to be able to use certain features of the system.</p>	<p>I learnt how to properly configure a workspace in EON-XR.</p> <p>I also learnt that working in a team setting improves our chances of solving problems.</p>

19/03/25	13:00	16:00	3	<p>We installed the Desktop application for EON-XR to be able to add labels and stuff to the workspace.</p> <p>We also started to tweak the workspace to customize it to our needs.</p>	<p>We Downloaded the desktop client for the EON-XR app.</p> <p>Navigated the app like how we saw in the youtube videos.</p> <p>Started to understand the workings of the app. Got familiar with its working and elements.</p>	<p>I learnt how to apply skills learnt in previous instances in our current problem.</p> <p>To use all the skills in my set and leverage all the resources at my disposal to achieve my goal.</p>
20/03/25	11:00	16:00	5	<p>Started working on the first experience. I chose the Room 1.31 as the first room.</p> <p>Used annotations and portals.</p>	<p>Uploaded the pre-clicked photos by Chris and used them to create an Extended-Reality Style experience for people to use to get to know the RDCS building better.</p>	<p>Used my laptop and the EON-XR Desktop edition application to create a marvelous experience.</p>
24/03/25	11:00	16:00	5	<p>Started working on the second part of the experience. I chose the Level 2 as the second Part.</p> <p>Used portals.</p>	<p>Used image size reducer to reduce the size of an image that was too big for the eon-xr workspace to be uploaded.</p> <p>Uploaded the pre-clicked photos by Chris and used them to create an Extended-Reality Style experience for people to use to get to know the RDCS building better.</p>	<p>Used my laptop and the EON-XR Desktop edition application to create a marvelous experience.</p> <p>Learnt to use open-source image compressor software.</p>

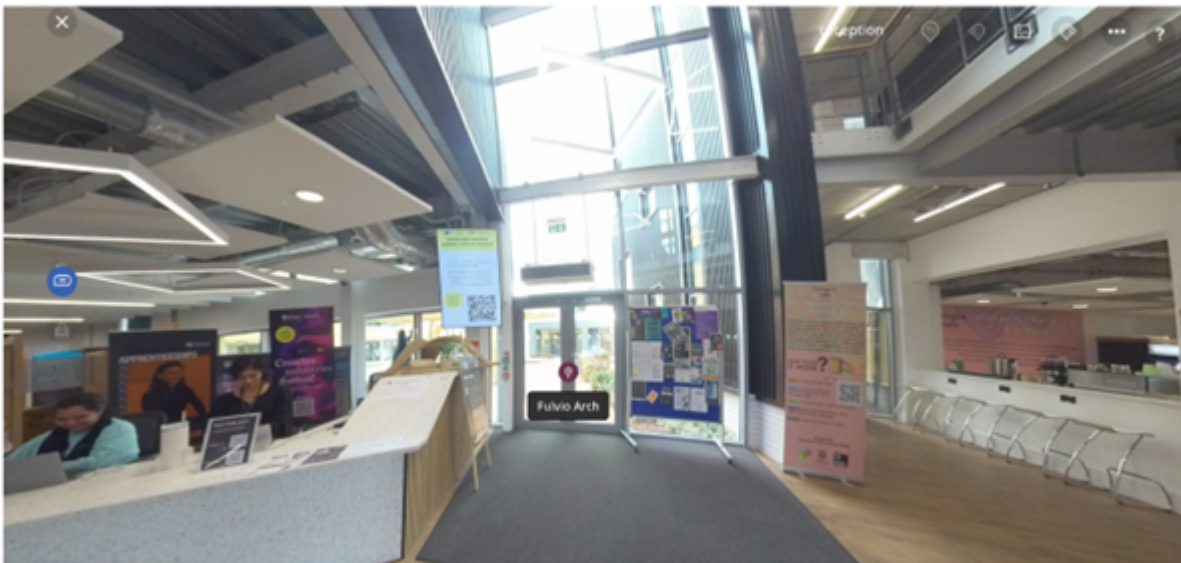
31/03/25	11:00	16:00	5	<p>Started working on the third of the experience. I chose the Level 1 and reception as the third part</p> <p>Used annotations and portals.</p>	<p>Started working on the third part of the experience – Level 1 and Reception. Used annotations to highlight key areas and portals to allow smooth navigation from the entrance to nearby rooms. Focused on making the reception area welcoming and informative for first-time users.</p>	<p>This part sets the tone for the entire experience and introduces users to the RDCS building in an engaging, extended-reality format.</p>
07/04/25	11:00	16:00	5	<p>Started working on the last part of the experience. This will be the area outside the reception.</p> <p>Used annotations and portals.</p>	<p>Started working on the final part of the experience – the area outside the reception, including the Fulvio Arches. Used annotations to provide context and historical background, and portals to create a smooth transition from the reception to the outdoor space. Focused on capturing the architectural beauty of the Fulvio Arch.</p>	<p>Making the outdoor area an engaging part of the virtual journey. Continued working with the EON-XR Desktop edition on my laptop, using pre-clicked photos by Chris to ensure visual accuracy and consistency throughout the experience.</p>

Confirmation of Placement Completion/Certification (To be completed only by Placement Manager at the End)			
Total no. of hours worked:	70	I confirm that the <u>above named</u> student has successfully completed his/her work experience programme.	
		Signature X	
N.B. Please ensure 70hrs are fully completed and agree the above work has been undertaken before completing this section.	Line Managers Name		
	Date Signed		/ / 2024

Please repeat the table as required to extend the sign offs. Please don't forget to collect evidence where possible like photographs etc.

link: <https://share.eon-xr.com/lesson/474/1012006>

Some ScreenShots





—THE END—