Professional CV	**SAM HOLCROFT**
Key Qualifications:	BEng in Mechanical Engineering, Liverpool John Moores University, 2020
Key Experience:	Five years of experience working within team environments and an excellent academic record throughout University. I have a passion for the field of Engineering and have thoroughly enjoyed the challenge of University to date. I have a keen interest in the technical side of engineering design and have ambitions to pursue chartered status.
Achievements:	Awarded Liverpool Engineering Society Prize Awarded IMechE Project Prize Vice President of LJMU Climbing Society

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Graduate Engineer September 2020 – Present
Engineering Analysis Services Limited (EASL), Altrincham

- FE modelling of core guide pads (CGP) inside the reactor pressure vessel (RPV) to prove that the CGP has negligible effect on through wall stress distribution, justifying the selection of bounding locations elsewhere on the RPV. Originated the FEA and analysis of results, which was included as an appendix to the RPV Defect Tolerance Assessment for Sizewell B;
- Originated pipework movement monitoring report and assisted with an on-site audit of pipe supports for Heysham A;
- Continually developing proficiency in VBA and Python to assist with various engineering functions, such as FEA results extraction, FCG and LDS assessments; and
- Continuous training and development based on EDF Energy's Suitably Qualified and Experienced Person (SQEP) modules.

Greenkeeper March 2014 – September 2019
Hurlston Hall Golf and Country Club

Working in a small team, following instruction of the head Greenkeeper to maintain the quality of the golf course for year-round play. Duties: Mowing grass, using specialised tractor mounted hardware to conduct various maintenance operations, repairing and building features of the course (bunkers, paths, ditches).

Site Supervisor August 2012 to December 2014
Ormskirk School

Working in a team of two overseeing customers renting out school facilities during evening hours. Duties: Aiding customers, patrolling the school grounds, locking external windows and doors, setting the building alarm and ensuring the security of the building for the night.

University Final Year Project:
Assessing the Validity of Numerically Modelling the Heat Transfer Enhancement of Al_2O_3 – Water Nanofluids via the Single-Phase Method

- Carried out two numerical simulations of Al_2O_3 – water nanofluid in laminar forced convective flow with constant wall temperature and wall heat flux boundary conditions for a range of volume fractions 0.2% - 6%;
- Demonstrated the predictive power of numerical simulation for thermal enhancement using the single phase approach for volume fractions < 4%; and
- Highlighted the importance of appropriate model selection for the single phase approach by comparing a number of different models existing within literature.

Skills Profile:

Finite Element Analysis (Solidworks)
The Engineering Analysis module involves FEA study into various models within the Solidworks Simulation package. This module has helped me develop a strong competency into the methods of setting up an accurate but efficient FEA study, whilst being able to critically evaluate the results. For this module I am on target to achieve a first-class grade.

Computational Fluid Dynamics (ANSYS Fluent)
My final year project involves the CFD study of heat transfer in industrial applications, using ANSYS Fluent. This has been localised to a single pipe system, analogous to that seen inside common heat exchangers. The project investigated the limitations of single phase thermophysical models for the application of numerically simulating heat transfer. This project required me to develop a high level of competency with the application of CFD both theoretically and within ANSYS Fluent.

Willingness to learn
Throughout University I have always strived to go beyond the scope of each module I have studied, which I believe is reflected in my academic record and software expertise. This willingness to learn stems from a broad interest in the field of Engineering and Science in general.

Computer Aided Design (Solidworks)
From year one in my degree I have been taught and assessed on my ability to create CAD files and produce accompanying technical drawings in Solidworks, on which I have always scored highly. This transferred into my team design project which proved my ability to create models that were seamlessly integrated into a larger project.

Teamwork
A recent team design project required a complete redesign for the drive platform for a funicular railway system. I managed workflow, kept records and helped other team members during each team meeting, alongside my individual contribution to the project. This organisation and management allowed the team to achieve 80% for the project; one of the highest grades in the year.

Written Communication
When performing laboratory experiments, I have maintained an excellent note taking procedure allowing me to produce written laboratory reports that have been graded consistently at or above 80%. With a literature review assignment graded at 85%. These documents are required to include industry standard technical communication along with exemplary use of referencing. I have recently received 84% for my final year project interim report, this 4000 word report details the initial theory and plan for the project.

Verbal Communication
As Vice President of LJMU Climbing Society, part of my role is to give verbal and practical briefings to groups of new climbers on the safe practise of climbing. Clarity and concision are essential when delivering safety briefings as I need to ensure all instructions are completely understood in such a hazardous environment. These sessions afford me to continually develop this skill and I have recently been receiving great feedback from groups of new climbers.