

PERSONAL DETAILS**Bilal Ahsan**

07403533828

ahsan.b97@outlook.com

Manchester, M18

British

EDUCATION

Qualifications **AMIMechE – Associative Engineer**
Institution IMechE

Qualifications **Mechanical Engineering BEng, 1st Class**
Institution The University of Salford

Qualifications **Mathematics, Biology & Chemistry, A - Levels**
Institution Loreto Sixth Form College

EMPLOYMENT HISTORY

Position, Year(s) **Design Draughtsman, Aug 2021 – Present**
Employer NOV Process Flow Technologies, Manchester

Position, Year(s) **Mechanical Design Engineer, Jan 2020 – Aug 2021**
Employer IDOM Nuclear Services, Manchester

Position, Year(s) **Project Engineering Intern Dec 2017 – Dec 2019**
Employer Erasteel Stubs Ltd, Warrington

Position, Year(s) **Store Assistant, Sept 2015 – Dec 2017**
Employer Domino's Pizza, Stockport

PROJECTS

Position, Year(s) **DESIGN DRAUGHTSMAN**
Client **NOV PROCESS FLOW TECHNOLOGIES, MANCHESTER**
Project Various

Duties Day-to-day activities involve modifying existing pump designs for various orders based on the application requirements and design parameters set by clients, producing 3D models and their corresponding general arrangement drawings using Solidworks. Performing basic lifting calculations for the products to be lifted via a sling during their handling on the shop floor and onsite installation. Creating Bill of Materials for the different products. Designing various pump packages and their connecting pipework according to various site requirements and layouts. Some training on using GD&T based on ASME and ISO standards.

Position	MECHANICAL DESIGN ENGINEER
Client	IDOM NUCLEAR SERVICES, MANCHESTER
Project	Cubicle and Corridor System Design for LORELEI Test Device, ROTEM.
Duties	As a design mechanical engineer, working in a very dynamic and varied discipline team of mechanical engineers produced CAD/Fabrication drawings for 9 different pressure vessels for the LORELEI test device using Solidworks and AutoCAD. Daily routine activities include updating CAD models and associated drawings as well as reports with any comments received from the client. Drawing duties included producing BOM list associated with each vessel and part tree structuring list. Preparing CAD files to be imported and used in FEA.
Position	MECHANICAL DESIGN ENGINEER,
Client	IDOM NUCLEAR SERVICES, MANCHESTER
Project	Degasifier Column, Hinckley Point C
Duties	Performed PV Elite based calculations for the design of a Degasifier column in accordance with EN 13445 and PD 5500 code. Used CATIA V5 to produce a fully detailed 3D CAD model and outline drawing of the column. Preparing CAD files to be imported and used in FEA. Carried out static structural analysis using Ansys Workbench. For the purposes of mechanical handling, I carried out sizing for the lifting lugs for the vessel using manual calculations. Performed lifting eye tear off calculations and also calculations for the membrane and bending stresses caused on the vessel by the lugs using WRC 107 and other calculations
Position	MECHANICAL DESIGN ENGINEER,
Client	IDOM NUCLEAR SERVICES, MANCHESTER
Project	Pipe Supports Analysis, Framatome
Duties	Produced 3D CAD models for pipe supports using Solidworks in an existing Framatome nuclear power station. Performed FEA analysis using ANSYS Workbench 18.1 and completed stress analysis reports as per client's specification.
Position)	MECHANICAL DESIGN ENGINEER,
Client	IDOM NUCLEAR SERVICES, MANCHESTER
Project	Leak Detection System, ITER Fusion Device
Duties	Updated existing CAD models for 9 different systems as well as the facility model within the leak detection system in the TOKAMAK facility for the ITER fusion device. Utilised P&ID diagrams to identify problems and update 3D models accordingly. Produced drawings for the different systems and the facility drawings as per client's specification.
Position, Year(s)	PROJECT ENGINEERING INTERN, DEC 2017 – DEC 2019
Client	ERASTEEL STUBS LTD, WARRINGTON
Project	Miscellaneous
Duties	Creating and updating Standard Operating Procedures (SOP) for wire processing and shaping machines. Carrying out Validations of SOP forms. Liaising with the Production, Quality, Health and Safety and Maintenance departments to carry out and improving planned preventative maintenance (PPM) of the site. Creating and carrying out audits for PPMs. Assisting in continuous project improvement by conducting shopfloor machine and tools auditing.

Position, Year(s)	SECOND YEAR STUDENT, SEPT 2017 – MAY 2018
Client	UNIVERSITY OF SALFORD, MANCHESTER
Project	Bomb Disposal Robot Group Design Project
Duties	Creating the design of a drive system for a bomb disposal robot for a group design project. Carried out design calculations such as gear ratios and turning speed as well as selecting appropriate motors available on the market based on the specification and motor type. Created the 3D CAD model and general arrangement drawings in Solidworks and collaborated with the project team to ensure assembly requirements were met.
DIGITAL SKILLS	CODING: JavaScript, Python, VSCode, IntelliJ, HTML, CSS, GIT, React.js, Node.js, Bootstrap, jQuery, SASS MECHANICAL ENGINEERING: AutoCAD (1.5 years), Solidworks (7 years), CATIA V5 (1.5 Years), Autodesk Inventor, Teamcenter, PDM vault MS Office
DESIGN CODE LITERATE	MECHANICAL ENGINEERING: BS EN 13445, PD 5500 & RCC-M, WRC-107
LANGUAGES	
Language	ENGLISH
Level	Fluent/Native
CODING PROJECTS	
Calculator	https://github.com/bilalahsan97

COVER LETTER

Addressed to the Hiring Manger,

By way of introduction, I am currently working as a design draughtsman at NOV, where my job consists of designing various pump components and their respective engineering drawings, as well as dealing with elements of site installation.

However, for the past 9 months, I have been researching into how I could transition my career to being a web developer. Through further research and by speaking with people on LinkedIn, I chose the web development path. To initiate this, for the past year I have been following the Front-End developer path on Codecademy. This covers the fundamentals of JavaScript, HTML, CSS, React, and methods such as web hosting through Git and JavaScript Testing. In addition, it also covers Web Apps, Redux, data structures and algorithms and also advanced web development techniques such as pair programming and advanced pair-programming.

For the past month, I have been learning to use React, Bootstrap and jQuery. I am just about to start building a portfolio website using React. Previously, I have created a functional calculator using HTML, CSS and JavaScript. And I have recently just finished adding a dark mode feature to it. I have thoroughly enjoyed learning to code through JavaScript and I am keen to complete my course and totally committed to kickstart a new career in web development. I have currently set myself a goal to achieve this by middle of this year. Apart from this, I really enjoy learning about new technologies through social media and any digital events held. Furthermore, I enjoy problem-solving and curious in finding unique solutions by using my own initiative and researching the problem. Due to these reasons, I am particularly interested in software development as it will provide exactly this. This opportunity, especially at such a renowned organisation, will enable me to work and learn from senior developers and improve and progress my career. All in all, it is a perfect opportunity to allow me to start my new dream career.

I look forward to hearing from you.

Yours Sincerely,

Bilal Ahsan