Shriya Kanitkar

Graduate Nuclear Safety Specialist

Core skills

- Adaptability
- Communication
- Problem solving
- Teamwork & Leadership
- Organisation & Time Management

Education & Qualifications

- Meng Chemical Engineering (Hons) 2:1 – The University of Manchester

Licenses & certifications

- N/A

Years of experience

<1

Suitability to the role

Shriya has an MEng in Chemical Engineering, ready to apply existing skills and knowledge whilst also eager to gain more industry knowledge.

Education

The University of Manchester – MEng Chemical Engineering (Hons) 2:1

After successful completion of her chemical engineering degree, Shriya gained a strong foundation in core principles such as reaction engineering, thermodynamics, process design and fluid dynamics. She also developed skills in process simulation using software such as Aspen Plus and MATLAB.

During her time, she studied a Process Safety module, covering HAZOP, risk assessment and safety design principles for chemical plants. The 'Nuclear Fuel Cycle' module was chosen in final year where she gained specialist knowledge in nuclear fuel processing, waste management as well as both the environmental and regulatory aspects of the nuclear industry.

Throughout her course, Shriya built soft skills including leadership and teamwork during group design projects. Furthermore, both written and verbal communication skills through technical reports and presentations to both technical and non-technical audiences.

Project/Work Experience

Analysis of Ammonia Adsorption onto Metal Organic Frameworks (MOFs) Using Solid-State Nuclear Magnetic Resonance (ss-NMR)

MEng Dissertation – The University of Manchester

Shriya synthesised two different versions of the metal organic framework in order to look further into reversibility and therefore different storage applications for the different MOFs. Multiple lab experiments were conducted, including ^{1}H, ^{13}C and ^{27}Al NMR. She concluded that each MOF would have different industrial applications as well as proposing ideas for future experiments. She gained lab experience as well as working in a team where similar research was being done.

Process Engineering Intern

Binnies – Water Management & Treatment

Shriya learnt to adapt her existing theoretical knowledge from university to solve real problems. She completed mass balance calculations in 'Excel' for a new water treatment works in Hong Kong (Tsuen Wan) as well as gaining experience of pipe hydraulic calculations/pump sizing for a water treatment site using 'DWG TrueView'. Further to this, she worked on the tendering stage of a project which sought to integrate new reservoirs into an existing water supply system. Throughout the process she also developed her soft skills by creating and presenting a slide deck of her work completed over the summer internship.

Third Year Design Project – The Sustainable Production of Adipic Acid

The University of Manchester

Shriya took part in a group project on the topic of ‘The sustainable production of Adipic Acid’. Key aspects included: mass and energy balances as well as research into the best route of production, considering social, economic, and environmental impacts. Some of her key tasks included compiling the final report consisting of work from all group members, ensuring a consistent approach and formatting throughout the report. She also conducted life cycle analysis in ‘CCaLC’ as well as analytical models in ‘MATLAB’ and ‘Excel’. – Another part of the project was an individual report on the detailed design of one of the main crystalisers used in the process. Here, she significantly developed her technical knowledge and working with different people within a team