Neil Verdia, **AMIMechE**

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Profile

Affiliation: An associate member of the Institute of Mechanical Engineers (**IMechE**), working towards becoming a Chartered Engineer (CEng)
Passionate and driven Master of Mechanical Engineering (**MEng**), enthusiastic about translating academic expertise into a dynamic professional career. Aspiring to contribute to sustainable development and engage in impactful research. A proven team collaborator with valuable insights gained through diverse industrial internships, complemented by effective communication skills.

Higher Education

MEng in Mechanical Engineering; University of Glasgow (Glasgow, UK)
With Honours of the Upper Second Class: Division i (2:1)
September 2019 – June 2024

Key Courses:

- Mechanical Design, Thermodynamics, Control, Finite Element Analysis, Engineering Mathematics, Fluid Mechanics, Mechanics of Solids and Structures, Renewable Energy, Computer Programming, Vibrations, and Professional Entrepreneurial Practice.

British School of Guangzhou (Guangzhou, China)
2013 – 2019

Skills

Software Proficiency

- Fusion 360, Inventor, SOLIDWORKS, ANSYS Mechanical, ANSYS Workbench, Abaqus Unified FEA, MATLAB, Simulink, ANSYS GRANTA Edupack, Python, LabVIEW, PSpice, InVision, Microsoft Office, LaTeX.

Engineering Skills

- 3-D Printing, Morphological Analysis, Product Design Specifications, Prototyping and Manufacturing, Project Planning, Designing with Compliance to Standards, Documentation.

Other Skills

- Problem-Solving, Health and Safety, Risk Assessments, Time Management, Cross-Cultural Competence, Communication, Teamwork, Report Writing, Presenting, Public Speaking, Six Sigma/ Lean Six Sigma.

Languages

- English (fluent), Hindi (native), Mandarin (intermediate)

Work Experience

Thai Nippon Steel – Intern (Bangkok, Thailand)
June 2022 – August 2022

- Collaborated in offshore oil rig design with a multidisciplinary team of 15 engineers.
- Gained insight into the iterative engineering process.
- Performed pressure, and volume flowrate calculations.

Indorama Ventures – Intern (Lop Buri, Thailand)
May 2022 – June 2022

- Shadowed the facility managerial staff of 5 interdisciplinary engineers as they planned a turnaround maintenance.
- Learned project management and control systems implementation.
- Followed a crew of 8 maintenance engineers throughout the factory as they repaired different pumps and valves. Learnt the importance of 3 types of seals and 2 types of bearings.

Andritz China – Lab Assistant (Foshan, China)
June 2019 – July 2019

- Tested 3 separate batches of paper, pulp and fibre samples.
- Improved testing, reduced testing period from 5 to 2 weeks.

Projects Undertaken

Satellite Micro-Vibration Attenuation
August 2023 – February 2024

- Designed 7 unique radial micro-vibration attenuation devices for satellite optical payloads in Fusion 360. All in the form of monolithic compliant mechanisms.
- Conducted structural modal analysis (FEA) using ANSYS Workbench software.
- Prototyped all 7 iterations using additive manufacturing.
- Validated simulation results through experimental procedure.

Waterpark Systems Design
September 2022 – June 2023

- Collaborated with a team of 4 mechanical engineers.
- Designed a full waterpark with 4 rides.
- Performed pressure, and volume flowrate calculations.
- All designs created were compliant with British and International Standards.

Injection Moulded Tyre Inflator Case
September 2021 – June 2022

- Created a tyre inflator case.
- Selected the optimal material using ANSYS GRANTA Edupack.
- Optimised design for injection moulding.
- Conducted 2 design failure modes and effects analysis (DFMEAs).
- Produced an extensive 3-page engineering drawing detailing the full design.

Mountain Bike Project
September 2020 – June 2021

- Collaborated in a cross-departmental engineering design project. The team comprised 4 engineers: 2 mechanical engineers, 1 biomedical engineer, and 1 product design engineer.
- Designed a drive train with 3 chainrings and 6 rear cogs for 18 driving combinations for users.
- Designed and collated all designs on Fusion 360.
- Produced engineering drawings and a BOM.

Posts of Responsibility

University of Glasgow's Volleyball Club: Men's Second Team Player
October 2022 – July 2023

- Attended 3 weekly training sessions and matches on Sundays.

University of Glasgow's Park Volleyball Society: Founder and President
March 2020 – February 2023

- Built net posts, and improved design iteratively.
- Scheduled and ran regular sessions for 70 members.
- Handled recruitment and event planning.

British School of Guangzhou: Head Boy
September 2017 – June 2018

- Gave valedictorian speech.
- Gave regular presentations to the full secondary school comprising of 300 – 400 students and teachers.
- Composed the student constitution.
- Interviewed and selected the new student leadership committee.

Awards

University of Glasgow's Engineering Excellence List – 2020

University of Glasgow's Scholarship for Academic Excellence (5-Year Scholarship) – 2019

United Kingdom Maths Trust Senior Maths Challenge: Bronze Medal – 2019