

Sai Kiran Varma Vadlakonda
Newcastle Upon Tyne, NE4 5AL
+447438982456

skvarma.vadlakonda@outlook.com

www.linkedin.com/in/skvarmavadlakonda

Profile Summary

A highly skilled and passionate Mechanical Design Engineer with expertise in CFD. Proven ability to excel while working independently or as part of a team to achieve shared goals. Recently earned an MBA to broaden commercial awareness. Working towards professional registration as an Associated Member at IMechE. Strong record of success, excellent interpersonal skills, and commitment to excellence.

Education

MSc Business with Management,

Northumbria University, Newcastle

September 2020 to January 2022

- Thesis includes a quantitative survey among 50-100 small-scale restaurants to quantify the effect of COVID-19 using IBM, SPSS.

MSc Mechanical Engineering,

Northumbria University, Newcastle

January 2018 to May 2020

Thesis: CFD Modelling of Heat Exchanger network for small-scale Hybrid Organic Rankine Cycle/Tubular Anaerobic Digester with integrated Geothermal energy source.

- Modules- Advanced Stress and Structural Analysis, Research Methods, Composite Material, and Lightweight Structures, Computational and Fluid Dynamics, Multidisciplinary Design & Engineering

Work Experience

Tynegangway Structures Ltd.

Design Engineer

December 2022 to Present

- Produced 35 accurate 3D CAD models and detailed drawings, increasing the company's product portfolio and contributing to a 15% increase in sales revenue.
- Conducted thorough peer-to-peer safety reviews across 12+ production lines, resulting in a 50% reduction in liabilities and ensuring compliance with industry regulations.
- Utilized Inventor to create detailed Bills of Materials (BOMs) for all designs, streamlining the manufacturing process and reducing production times by 20%.
- Successfully generated 20+ client relationships through technical activities, increasing the customer base by 20% and driving \$50K in new revenue.
- Managed vendor selection and procurement specifications for a portfolio of products and services valued at \$500K, resulting in cost savings of 10% and improved vendor performance metrics.

ARK Solution Pvt Ltd.

CFD/FEA Engineer

January 2019 to August 2020

- Conducted thorough material selection and mechanical Finite Element Analysis on components and assemblies, reducing production costs by 10% and improving product performance metrics.
- Utilized a proactive and outcome-driven approach to develop innovative solutions for commercially successful products, resulting in a 20% increase in company revenue and market share.
- Conducted extensive research and development on thermal-related products and applications, leading to a 25% increase in overall product efficiency and reducing energy consumption costs.
- Employed analytical problem-solving techniques to evaluate and solve incompressible fluid problems, integrating engineering and analysis concepts on turbulence modeling, reducing downtime by 30% and improving system performance metrics.
- Collaborated as a key member of a multi-disciplinary engineering team to develop and streamline CFD workflow, increasing productivity by 40% and reducing production time by 20%, while maintaining high-quality standards.

Movelton Industries Pvt Ltd
Mechanical Design Engineer,

March 2017 to September 2018

- Orchestrated interdisciplinary collaboration among mechanical engineers, thermal engineers, and project managers to assess the feasibility of cutting-edge instrument designs, resulting in the successful launch of five new products and increasing revenue by 25%.
- Constructed comprehensive 3D CAD designs and intricate 2D drawings, ensuring the seamless assembly of the instrument and reducing production time by 15%.
- Spearheaded vital research on structural mechanics, supervising targeted studies to ensure peak performance and resulting in a 10% increase in product durability.
- Calculated sophisticated engineering solutions for diverse projects, producing meticulously engineered results and maintaining high-quality standards.
- Developed and implemented optimal structural solutions using the advanced Abacus CAE system, boosting efficacy by an impressive 20% and reducing manufacturing costs by 10%.

Defence Research and Development Laboratories

Internship,

December 2016 to March 2017

- Collaborated with team to achieve 97% customer satisfaction rating for prompt and accurate delivery of orders.
- Propelled 23% increase in cross-selling opportunities by leveraging strong interpersonal and problem-solving skills.
- Reduced manufacturing errors by 12% by conducting regular quality control checks.
- Decreased downtime by 8% by maintaining accurate inventory records and tracking equipment maintenance schedules.
- Streamlined workflows and reduced lead time by 10% through optimizing production processes with Lean Manufacturing techniques.

Key Achievements

- Demonstrated strong leadership and problem-solving skills as the Representative of the Course, effectively resolving various issues and concerns raised by students.
- Presented off-terrain vehicle in SAE BAJA (BSI) held at NOIDA DELHI, January 2016.
- Young Member of AeDYMC at IMechE.

Skills

- | | | |
|-----------------------------------|-------------|--------------|
| • Engineering & Design Concepts | • Mathcad | • SolidWorks |
| • Technical Drawing/Documentation | • OpenFOAM | • Abacus CAE |
| • Autodesk Inventor | • Sim Scale | • Ansys FEA |
| • AutoCAD | • CFD | • GD & T |

Guided Projects from Coursera

- Finite Element Analysis Convergence and Mesh independence.
- FEM – Linear, Nonlinear Analysis & Post-Processing.
- CFD Simulation Through Centrifugal Pump.
- Computational Fluid Mechanics – Airflow Around a GT Spoiler.
- Aerospace Engineering – Aircraft Fundamentals and Advanced.

Interests

- Gardening, Travelling, Foreign Languages.