Vikram Vaidya

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EDUCATION

New York University   **New York, NY**
Master of Science (MS), Mechanical Engineering (GPA: 3.63)   *Sept 2023 – May 2025*
  •**Achievements:** Merit Scholarship Recipient, Mechanics and Structural Systems Specialization, Data Science Bootcamp
  •**Coursework:** Additive Manufacturing of Metals, Composite Materials, NDE, Project Financing, Operations Management

Ramaiah Institute of Technology   **Bangalore, India**
Bachelor of Engineering (BE), Mechanical Engineering (GPA: 3.6)   *Aug 2018 – July 2022*

EXPERIENCE

Analyst | *Merkle DGS – Bangalore, India (Remote, North America-aligned)*   **Sept 2022 – Sept 2023**
  • Analyzed revenue and margin trends across e-commerce platforms and developed interactive dashboards in Power BI, identifying advertising drivers that contributed to a $5M revenue increase for retail clients
  • Built and deployed a real-time analytics chatbot using Flask, SpaCy, and Plotly that translated natural-language queries into insights for non-technical users, reducing reliance on SQL and cutting data retrieval time by 30%.

Mechanical Design Engineer | *Ecotex Environmental Technologies – Bangalore, India*   **Aug 2022 – Aug 2023**
  • Reduced design iteration time by 20% by developing parametric 3D CAD models for plant equipment and piping in AutoCAD and validating pump sizing using pump curves and system head calculations
  • Restored operational readiness and reduced mismatch-related delays by 30% by coordinating with 6+ vendors, resolving RFIs, and troubleshooting mechanical integration issues through P&ID and datasheet reviews during plant shutdowns

Mechanical Design Intern | *Alpha Design Technologies – Bangalore, India*   **June 2022 - July 2022**
  • Designed CAD models and assemblies for electro-mechanical defense prototypes using SolidWorks, documenting 20+ product designs, parts and BOMs in ENOVIA SMARTEAM to support PLM

Manufacturing Quality Intern | *Hical Technologies – Bangalore, India*   **Sept 2021 - Nov 2021**
  • Conducted quality inspections for 60+ subassemblies, performing metallographic weld inspections using Rapid-I VMS, and verifying compliance with ISO 9001 dimensional and functional standards.
  • Reduced recurring defects by 15% performing RCA in Minitab and supported CAPA actions for non-conforming components

Manufacturing Process Intern | *Heidelberg Prominent Fluid Controls – Bangalore, India*   **Feb 2021 - Apr 2021**
  • Manufactured polypropylene liquid-end pump components by operating FANUC CNC machines, modifying G- and M-codes, and maintaining dimensional tolerances within ±0.05 mm in a production environment

PROJECTS

NYU Vertically Integrated Projects – Reprint Bot Additive Manufacturing Team   **New York, NY**
Team Captain, Mechanical Team Lead   *Sept 2024 – May 2025*
  • Led a cross-functional team of 15 engineers in designing, rapid prototyping, and testing an Unmanned Aerial Racing Cargo Vehicle, applying DFM/DFA principles for assembly efficiency and reduced part count
  • Developed 3D-printed enclosures for PCBs, motor mounts, and electro-mechanical components, and integrated firmware-hardware systems to enable closed-loop feedback control for autonomous payload handling

NYU Data Science Bootcamp – Air Quality Analysis in India   **New York, NY**
Term Project   *Sept 2024 – Dec 2024*
  • Analyzed large-scale environmental datasets across 36 Indian states/territories using Python (Pandas, NumPy) to clean data, handle missing values, and identify temporal, seasonal, and regional pollution trends
  • Applied statistical analysis and classification models (Scikit-learn, ANOVA, correlation analysis) to interpret particulate matter levels and translate findings into public-health and policy-relevant insights

Lockheed Martin SAE Aero-Design Competition (Ranked 2nd Internationally)   **Los Angeles, CA**
Design Team, Report and Presentation Lead   *Nov 2019 – May 2022*
  • Designed and fabricated a modular RC of a cargo plane (55 lbs max gross weight) in Fusion 360 applying FEA, CFD and DFM to assess manufacturability with balsa wood and validate performance
  • Engineered lightweight landing gear through topology optimization on ANSYS Mechanical (30% lighter than previous year), incorporating vibration-damping features to absorb shock loads during rough landings effectively

Composite Materials Lab RIT, under Prof. L Sunith Babu   **Bangalore, India**
Undergraduate Student Researcher (Awarded best Senior Design Project by Mech E Department)   *Jan 2022 – May 2022*
  • Fabricated GFRP laminates reinforced with Super Elastic Shape Memory Alloy (Nitinol) wires using vacuum bagging and validated impact performance upon low velocity testing, achieving a 40% reduction in deformation area aligned with simulation results

SKILLS

  • **CAD & Simulation:** SolidWorks, CATIA, AutoCAD, Autodesk Fusion 360, ANSYS, XFLR5, Cura
  • **Manufacturing:** 3D Printing (FDM, SLM, DMLS), Lathe, Milling, CNC, Laser Cutter
  • **Technical Skills:** GD&T, Six Sigma, DFMEA, PFMEA, Root Cause Analysis, SPC, PPAP, BOM Management, RFIs, RFQs
  • **Data Tools:** Python, Power BI, Tableau, MS Excel, Minitab, MATLAB, Simulink, C, MySQL, Jira

OTHER INTERESTS

Undergraduate and Graduate Quiz Team; represented Singapore in international cricket; travelled to 24 countries;