**EDUCATION**

**University of Illinois at Urbana-Champaign Urbana, IL** *Master of Engineering (MEng) in Mechanical Engineering*Expected Graduation December 2024

Coursework: Design for Six Sigma, Data Science in Manufacturing Quality Control and Electronics Cooling

**NMIMS University Mumbai, India**

*Bachelor of Technology (BTech) in Mechanical Engineering* Graduated May 2023

*Master of Business Administration (MBA) in Technology Management (dual degree)*

Minors in Operations-Supply Chain Management and Business Analytics

# **SKILLS**

* **Tools:** ANSYS Icepak, AutoCAD, Siemens NX, Python, SolidWorks, Tableau, Fusion360, Minitab
* **Manufacturing:** CNC Machining, 3D Printing, Statistical Process Control (SPC), Technical Documentation, Design of Experiments (DoE), Design for Manufacturing & Assembly (DFMA), Tooling Design, Lean
* **Certification:** Professional Certificate in Electric Cars – TU Delft
* **Spoken Languages:** Fluent in English, Hindi, and Tamil; Intermediate in German (A2)

# **PROFESSIONAL EXPERIENCE**

**Micro-Nano Mechanical Systems Cleanroom Laboratory Urbana, IL**Mechanical Engineering Student Assistant Jan 2024 – May 2024

* Addressed client’s wafer fabrication inefficiencies by optimizing the High-NA Photolithography Process.
* Applied Lean and SPC techniques using Minitab for data analysis, improving process efficiency by 10%.
* Evaluated DoE principles to refine process parameters, resulting in improvement of yield quality by 3%.
* Increased SEM imaging accuracy by 20% through sustainable PVD coatings, enhancing material characterization.
* Created technical reports and Tableau dashboards, recommending improved SOPs and input parameters.

**STEM Workshop Instructor Champaign, IL & Mumbai**

Independent Mentoring VolunteerOct 2018 – Present

* Devised workshop procedures to streamline delivery and enhance student engagement by 30% in US schools.
* Worked with Teach for India (TFI) to lead a team of eight in delivering STEM-based workshops to 500+ students.
* Volunteered with UIUC’s Mechanical Engineering Department to deliver Additive Manufacturing outreach workshops, promoting the undergraduate program to over 50 new high school graduates from Illinois.

**The Aviation & Automobile Blogger – Technical Media Startup Mumbai, India**FounderJan 2019 – May 2023

* Led a team of five, managing content schedules, resources, and project timelines to meet business goals.
* Generated $5000+ in revenue through advertising, partnerships, social media management, and travel blogging.
* Supervised cross-functional projects, boosting efficiency by 15% through technical research and content strategies.
* Partnered with Lufthansa Technik and BMW India, organizing factory tours to curate informational content.

**PROJECTS & PUBLICATIONS**

**Research Publication: A Challenging Future of Industry 4.0—New Technologies and Lean Production Systems**

* Co-authored research analyzing the integration of Industry 4.0 technologies and Lean Manufacturing methodologies, published in Springer Nature Singapore, March 2023. ***DOI:*** *10.1007/978-981-19-7971-2\_5*

**Digital Twin Model of a Custom Single-Phase Cooling Heat-Sink for Server CPUs**

* Developed a Digital Twin Model of AMD EPYC CPU & custom single-phase cooling heat sink using Fusion360.
* Simulated the digital model with ANSYS Icepak using real-time data to improve cooling efficiency by 12%.

**GreenFleetTech – Biomimetic Shark Skin for Electric Semi-Truck Efficiency Improvement**

* Increased semi-truck efficiency by 1.5% through drag reduction using biomimetic designs inspired by shark skin.
* Engineered scalable simulations and applications with CFD and Python, evaluating commercial EV feasibility.

**2020 Boeing’s National Aeromodelling Competition – IIT Madras India**

* Ranked Top 3 nationwide by leading a team of four to engineer aircraft prototypes with 25 lbs payload capacity.
* Applied DFMA principles to simplify manufacturing and assembly processes, reducing build time by 20%.
* Performed on-spot disassembly & component analysis, refining our design features to outperform our competitors.