SAGAR WADKE

Mechanical Engineer

Personal Information

🎂 03/04/1995

📍 Goethestraße 31, Wedel, 22880 Germany.

💬 German (B1) | English (C1) | Hindi | Marathi

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Programming Skills

- C / C++
- Python
- R Programming
- MATLAB

CAD & CAE Skills

- SolidWorks
- SpaceClaim
- Creo
- AutoCad
- ANSYS Workbench & Fluent

Other Skills

- SAP
- LATEX
- JIRA
- Confluence
- MS Office (Excel, Word & PowerPoint)
- Adobe (Illustrator & Photoshop)

PROFILE SUMMARY

Mechanical Engineer with 3+ years of experience in the design, fabrication, and developing high-precision optical measurement and manufacturing systems. Strong background in design, tolerancing, and manufacturing processes. Proficient in camera calibration, image processing, system integration, and data analysis. Effective in international, high-pressure environments, consistently delivering optimized solutions for performance, cost, and quality.

PROFESSIONAL EXPERIENCE

Oct 2022 - Present

Working Student, Image Quality
Trioptics GmbH (Jenoptik AG).

- Contributed to **product design** and **development** for **MTF** measuring systems **in Visual**, **UV, MWIR and LWIR** spectrum for ImageMaster Universal and Afocal series
- Designed and validated **proof-of-concept** for an **advanced intrinsic camera calibration** performance and **distortion** measuring system.
- Prepared **programming scripts** for measurement of samples, in-house **calibration** and **testing** of devices used in production.
- **Automated** certification and **documentation** workflows with **Excel VBA and Python**, **cutting** documentation time **by 75%** and boosting efficiency.

Feb 2019 - Feb 2020

Quality Engineer
Paras Space and Defence Technologies Pvt Ltd (Optics Division).

- Performed **optical metrology** on products such as **aspheric, diffractive**, and **asphero-diffractive** lenses, **gratings**, and **mirrors** preparing detailed final reports.
- **Collaborated** with **cross-functional teams** in **machining, polishing**, and **coating** to optimize the manufacturing workflow and ensure smooth production.
- Developed an **algorithm in Excel** to automatically validate product parameters, resulting **in zero defects** and significant **time savings**.

EDUCATION

2021 - 2024

MSc. Mechanical Engineering and Management
- Hamburg University of Technology
- Specialization: Product Development and Planning
- 1.8

2013 - 2017

B.E. (Mechanical Engineering)
- University Of Mumbai
- 2.0

ACHIEVEMENTS AND EXTRA CURRICULARS

- Successfully lead a multidisciplinary team to develop a concept for Automated Rotor House Fastening robot sponsored by Siemens Gamesa under the Fishing for Experience program organized at TUHH (2024)
- Secured first place in innovation workshop for developing innovative care concept for cows suffering from digital dermatitis (Mortellaro) at TUHH (2023)
- Successfully lead a team of international students to solve European Consortium of Innovative Universities Water Challenge. (2022)