

Desti Ratna Komala

Data Scientist - CFD Engineer

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Dear Hiring Manager,

I am excited to apply for the R&D Data Scientist position at Henkel. The unique blend of skills required for this role aligns perfectly with my professional journey and personal passion. With a deep expertise in data science and a strong background in computational fluid dynamics (CFD), I am eager to bring my interdisciplinary knowledge to Henkel's innovative projects.

In my current role as a Data Scientist at PT Fortech Indotama, I have led various data-driven projects that marry my love for data science with my engineering background. One of my proudest achievements was my work with INALUM, a leading aluminum producer, where I conducted comprehensive market trend analyses. By examining price fluctuations, demand-supply dynamics, and competitor activities, I was able to provide actionable insights that helped INALUM optimize their trading strategies. This project allowed me to leverage advanced statistical methods and machine learning techniques to predict market behavior, underscoring the powerful synergy between data analysis and strategic decision-making.

Another significant project involved collaborating with the Mahkamah Agung to develop a system for document entity recognition and summarization. Using natural language processing (NLP) techniques, I designed a system that could accurately identify key information in legal documents, such as case titles and involved parties. The algorithms I developed automated the summarization process, greatly improving the efficiency and accessibility of legal information. This project highlighted my ability to transform complex data into user-friendly solutions that have real-world impact.

My previous experience as a CFD Engineer has been equally fulfilling. As a freelancer and an employee at Kinerja Bangunan Indonesia, I worked with multiple clients to optimize their simulation objectives, achieving a 30% cost reduction by using open-source CFD platforms. My work at Puslitbang involved simulating smoke dispersion to enhance safety protocols and assessing wind comfort for urban residential areas. These projects required precise modeling and a deep understanding of fluid dynamics, both of which I excel in.

One project that stands out was my work on airflow modeling in urban areas for Plaza Kulongprogo. By conducting detailed simulations, I was able to recommend design modifications that optimized urban comfort and energy efficiency. These experiences have not only sharpened my technical skills but also fueled my passion for creating sustainable, data-driven solutions.

In addition to my technical expertise, I bring valuable experience from the consulting industry, where I worked as a Data Scientist. This role required me to align and communicate effectively with stakeholders, translating complex technical concepts into actionable insights that drive business decisions. Fluent in both Indonesian and English, I have a proven track record of presenting data insights, moderating discussions, and organizing knowledge-sharing events. My ability to collaborate across teams ensures that I can effectively transform complex data into strategic actions.

Furthermore, I am planning to pursue a master's degree in Data Science/Engineering Physics in 2027/2028 to further enhance my technical expertise and contribute to advanced research and development projects. This commitment to continuous learning ensures that I will bring the most advanced knowledge and skills to Henkel's initiatives.

Henkel's commitment to innovation and sustainability resonates deeply with me. I am particularly drawn to this role because it perfectly aligns with my unique combination of skills in data science and CFD. I believe my interdisciplinary expertise can drive Henkel's projects forward, enhancing product performance and contributing to sustainable growth.

Thank you for considering my application. I am eager to discuss how my background, skills, and enthusiasm can contribute to Henkel's continued success. This role is not just a job for me; it's an opportunity to leverage my interdisciplinary expertise and passion for innovation to make a meaningful impact.

Sincerely,

Desti Ratna Komala