## **Cover Letter**

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Within this letter, I would like to express my motivation and interest in applying to the open position in Ghent University as a PhD student under the Department of Information Technology. To be specific, I am interested in joining the research team on decentralized big data processing under the SOLID project (https://solidproject.org/).

My name is Rahmat Ramadhani, I am from Indonesia. In 2014, I got my Bachelor Degree in Computer Science from Lambung Mangkurat University, Indonesia. Then I proceed to the Master Degree in Applied Sciences of Charintia University in 2018, in the Spatial Information Management master programme. My master thesis was about detecting morphological changes in wetland areas using the Unmanned Aerial System (UAS). The thesis was focusing on geomorphological changes on a wetland area and analyzing the Digital Surface Model (DSM) of it. We explored the changes of volume and the accuracy of volume changes within a one year time scale and the relation with the season changes. On the other hand, I finished the Computer Science undergraduate program at Lambung Mangkurat University, Indonesia in 2014. My bachelor thesis was about creating a local server for vocational students to save their digital works such as images, audios, and videos. A web-based student portal was created which was used as the main gate for the students to access their digital works. While inside the web application, a machine to compress the digital works was applied, which was FFMPEG. Thus, the final system could store digital data with a smaller size.

Although my educational background is indirectly related to big data, I have personal motivation on why I want to join this project. After finishing my master degree, in 2019, I joined Lambung Mangkurat University as a junior lecturer. I am teaching several computer science courses such as algorithm and data structure, computer organization, and pattern recognition. While teaching, I was also included in the research team. We are focusing on data science and software engineering topics. This is where I got my hands-on towards data science on real world cases.

However, this is still not enough for me. In 2021, I got an offer from my friend to join a multinational company, Gramedia Asri Media as a data engineer. Here I maintain the data flow of the retail and publishing company. We handle millions of users with almost 500000 new rows per day and my job is to make sure that the data pipeline is running without errors end-to-end, from users activity until reporting. I realize that companies are growing rapidly and every company needs new big data technology to handle this. Data pipeline including ETL, ELT, and all other technology sure is helping a lot, but it is well-known that it has its limits. The project you are opening is where I can explore deeper in this technology. I am curious how big data can grow and be faster and I want to be involved in this journey.

In terms of technical skills, I have particular skills in programming (SQL, PHP, Python, and R) and data management (MySQL, Postgres). I am also familiar with cloud services such as AWS and GCP. Additionally, I can also handle work related to data reporting using BI tools such as powerBI and GDS. Last but not least, I also develop web applications. I built a small freelancer team to build web based applications by request.

In terms of non-technical skills, I am a confident and a team player person. I can adapt fast to a new work environment. I am looking up to work in a multicultural and multidisciplinary environment. I believe that I have a lot of room to grow both personally and technically.

I appreciate your time and consideration. I am hoping that my skills and experience could align with your specific needs. I'd love to learn more about becoming part of the team and going on the research of big data journey with your team.

Yours sincerely, Rahmat Ramadhani