Dear Dr. Marcus Paradies,

I am writing to express my strong interest in pursuing the Research Project focused on the topic **In-Browser Raster Data Processing**. The idea of processing data directly in the browser with WebAssembly looks interesting which if done properly will execute with near-native speed and overcome the limitations of Javascript based approaches for performing data analysis directly in the web browsers.

I am committed to dedicating myself fully to the success of this project. I am confident that my background in computer science, and my previous work experience as a software engineer working with databases and web development will be of use to this project for its completion.

I have experience working with:
-   Programming languages such as C#, Python, Javascript, and Go, with a focus on frameworks like ASP.NET, NodeJS and ReactJS.
-   Database management through SQL and NoSQL databases, understanding the intricacies of data modeling, indexing, and query optimization.
-   ML model development with python using packages such as Keras, Numpy, Pandas and Tensorflow

The tasks to complete as far as I understand for this projects are to:
-   Implement a raster data processing library of selected operations using WebAssembly(using libraries like duckdb-wasm).
-   Implement a data loader from a storage service (e.g. S3) for the above operation into the browser.
-   Also maybe implement the operations using Javascript for later comparison.
-   Evaluate and compare the performance of the implemented functions

Thank you for considering my application. I am excited about the opportunity to work on this project, and I look forward to the possibility of working with you.

Sincerely,
Vishnu Raj Cherukudi Mattuvayil