

Dear Prof. Dainotti,

Throughout the project, your consistent guidance during our weekly meetings and our focused discussions, such as those on class division, were instrumental in achieving our results. These collaborative sessions not only clarified key aspects of the work but also provided me with deeper insights into the research process.

Initially, the understanding was that I would be the first author alongside Anish on the paper '[GRB optical and X-ray plateau properties classifier using unsupervised machine learning](#)' that resulted from our research, with Shubham contributing significantly to the research. However, as the project progressed, it became evident that Shubham's PhD candidacy would benefit greatly from being listed as one of the first authors.

In a spirit of collaboration and support, Prof. Dainotti, Anish, Shubham, and I mutually agreed to adjust the authorship order and become equal first authors. While Shubham assumed the position as one of the first authors, it is important to emphasize that I and Anish were responsible for the entirety of the coding and data analysis that underpin the paper's findings.

It was particularly enriching to work on the Mixture Model, which originated from your idea and your guidance in shaping the approach significantly influenced the development of the model. Additionally, this project offered me an excellent opportunity to learn how to write a research paper, especially since it was my first big collaborative experience. I benefited greatly from your detailed re-writing and refinement of the paper, particularly in terms of effectively highlighting our results. I'm deeply grateful for the mentorship you provided throughout, as well as your support for my PhD applications through recommendation letters. I'd also recommend students looking to gain valuable experience in ML+astronomy at any stage of their career to join Prof. Dainotti's lab and work with her!

Thank you for making this project such a productive and collaborative experience.

Sincerely,

Sachin Venkatesh Thakku Saravana
Georgia Tech Physics