

My key contribution to the project was serving as the Data Researcher, where I focused on validating datasets, checking licensing, and ensuring ethical compliance. I gathered scholarly sources, pulled relevant statistics, and evaluated fatigue-detection datasets for credibility, diversity, and consent. This work gave the team a solid foundation for both technical and ethical decisions in our system. I feel confident that my contribution strengthened the project's reliability and helped prevent potential ethical issues.

One AI concept I learned and will use in my career work is dataset ethics and algorithmic bias analysis. Understanding how data diversity, consent, and licensing impact model performance taught me that AI isn't just about building models; it's about building them responsibly. I also learned how dangerous biased or improperly sourced datasets can be, especially when working with facial-recognition systems. This is knowledge I can apply to any AI or data-driven project going forward.

Our team collaborated well overall. We struggled to find each other but when we did, it was smooth sailing. We communicated roles early, shared progress consistently, and made decisions together when challenges came up. Paige could not participate; I tried emailing and sending her group emails but no avail. Jackson did an amazing job steering me in the right direction, whenever I didn't understand something. He also went above and beyond with coding. Todd was a great pillar of a leader. He handled a lot of communications and leader position. I sometime felt like I could be doing more work, but the boys reassured me I was pulling my weight. Overall, I had fun and learned some useful information. Ethical considerations were a key part of our conversations, especially around privacy, video storage, and avoiding biased models. I appreciated that everyone respected the need for responsible data practices rather than just focusing on performance.

If I had more time or resources, I would expand the dataset research by comparing even more fatigue detection datasets and examining demographic gaps in greater detail. I would also run preliminary bias tests or use synthetic data augmentation to improve fairness. Additionally, I would help the team draft a more detailed data-handling and security plan to prepare for real-world deployment. With extra time, these steps would make our system even stronger and safer.

