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| S.NO | application domain | complex problem identified | justification |
| 1 | Healthcare & Medical | Disease Diagnosis using AI & Machine Learning | The complexity arises from the vast number of variables (symptoms, genetics, environmental factors) that need to be considered in the accurate diagnosis of diseases. AI models must handle ambiguity and high-dimensional data while also being interpretable. |
| 2 | Transportation & Logistics | Optimizing Traffic Flow in Smart Cities | Traffic flow involves real-time data analysis, managing multiple variables like weather, accidents, road conditions, and public transport schedules. Solutions need to be adaptive, scalable, and require collaboration among various stakeholders. |
| 3 | Environmental Science | Climate Change Modeling and Prediction | Climate models involve complex interactions between atmospheric, oceanic, and terrestrial systems, making predictions difficult. The data is often incomplete, and results can vary based on the assumptions made about future scenarios, adding to the complex |