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SCHOOL OF COMPUTER SCIENCE ENGINEERING and INFORMATION SYSTEMS

FALL Semester – 2024-25

BITE497J – Project I

B.Tech (IT)

0th Review

Register Number	21BIT0377
Student Name	Mridul Jain
Project Code (Course Code)	BITE497J – Project I
Project Domain	AI in Healthcare
Project Title	**Mitigating the selection bias in AI for healthcare applications.**
Abstract (Mini-200 Words)	Selection bias in AI models for healthcare applications poses significant challenges, potentially leading to inaccurate predictions, unequal treatment outcomes, and unintended ethical consequences. This project aims to develop and implement strategies to mitigate selection bias in healthcare AI by leveraging advanced data balancing techniques, robust model evaluation frameworks, and ethical AI principles. By incorporating diverse and representative datasets, the project seeks to enhance the generalizability and fairness of AI models across various demographic groups. Additionally, it explores the integration of fairness-aware algorithms and the continuous monitoring of model performance to identify and correct biases dynamically. The project will also include a comprehensive analysis of existing biases in commonly used healthcare datasets and propose best practices for their mitigation. The ultimate goal is to ensure that AI-driven healthcare solutions are equitable, transparent, and capable of delivering high-quality care to all individuals, irrespective of their background or characteristics.
Keywords	Selection Bias, Data Balancing, Healthcare AI, Fairness Awareness, Model Generalizabilityity
Approval Status	Yes
Meeting date & Time	14th August, 3:00 pm

Student Guide Interaction meeting	The points were discussed during the meeting • Discussed about the project dataset • Filtered possible affecting columns leading to bias • Discussed the visualization metrics. • Discussed about original to biased mapping possibilities
Guide Name	**KISHORERAJA P C**
Guide Signature	
Approval Date	6th August, 2024

References:

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