

DEDICATION

This thesis is dedicated to those whose unwavering support and guidance have been instrumental in its completion.

First and foremost, I offer my deepest gratitude to God for the strength and wisdom bestowed upon me throughout this journey.

To my beloved parents, whose unconditional love and encouragement have been my foundation. Your belief in me has been my driving force, and this work is a testament to your support and sacrifices.

Finally, I extend this dedication to all informatics students worldwide. It is my sincere hope that this research contributes meaningfully to the field of Computer Science and inspires others to pursue knowledge and innovation.