

## DEDICATION

This thesis is compiled with the support of my family. I praise GOD and thank all who have helped, directed, and supported this work. I dedicate the work to my beloved parents, my father Yuki Firmansyah, and my mother Hermalia, and even my little sister Syifa Nadhifah Rahmani.

Thank you to my family who always gives me support, and my father who is a hero for me and always reminds me not to give up and finish all the business that has been started. My mother always encourages me and cheers me up every time.

Finally, this thesis is dedicated to all informatics students in the world. I hope that this research may provide a valuable contribution to Computer Science.

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