



## **YAHRIEL'S 4A's: AN INDEPENDENT INTERDISCIPLINARY FIELD**

**1. AEROSPACE-AERONAUTICAL SYSTEMS**

**2. ANTHROPOLOGY-ENGINEERING**

**3. APPLIED SCIENCE, TECHNOLOGY, AND SOCIETY (STS)**

**4. ANATOMY AND ARTIFICIAL INTELLIGENCE**

**BY YAHRIEL SALINAS-REYES**

A PROPOSED THESIS SUBMITTED TO THE GRADUATE FACULTY IN COMPLETE FULFILLMENT OF  
THE REQUIREMENTS FOR THE DEGREE OF

DOCTORATE OF NEUROSCIENCE AND BIOMEDICAL  
DATA-SCIENCE/INFORMATICS

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UNDERGRADUATE INSTITUTION: IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY

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# NATURE'S CHAOS GAME: AN EXISTENTIALIST APPROACH INFORMED BY MATHEMATICS AND NEUROBIOLOGY

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INVESTIGATOR: *Yahriel Salinas-Reyes*  
RESEARCH MANUSCRIPT

i.  
**DEDICATION**

I dedicate my thesis primarily to the two most important people in my life - my nurturing mentor known as The Cyclone of Education, and my to my lifelong supporter, and companion, Don Yahriel Salinas-Reyes - An embodiment of Chaos, Order, Logic, and Madness. I miss you both incredibly, and I promise to make good on my word to make you both proud.

I am deeply grateful to my family in the United States, Mexico, and El Salvador for bearing with me patiently as I worked on my thesis. I dedicate this work to all of you. Your unconditional love and strong show of support are the only things that kept me going every time I wanted to give up. To my parents, Sonia Reyes-Alvarenga and Oscar Salinas-Millan, your daily phone calls and pep talks kept me grounded and pushed me closer to the finish line. To my sister Lizbeth Salinas-Reyes, who would chide me every week and guilt trip me for being away from home - your prayers and love have kept me safe here. To my family Abigail Salinas-Reyes, Samuel Salinas-Reyes, Delmy Salinas-Reyes, and La Raza - thank you for seeing the best in me. You have never failed to cheer me up.

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