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

The student author, whose presentation of the scholarship herein will be reviewed by the program of study committee, is solely responsible for the content of this thesis. The Graduate College will ensure this thesis is globally accessible and will not permit alterations after a degree is conferred.

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Bachelor's: Aerospace and Aeronautical Engineering ('23)

Master's: Applied Science and Technology ('23)

Nature's Chaos Game: An Existentialist ApproachInformed by Mathematics and Neurobiology

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.

Lastly, to my supporters - thank you for being patient, caring, understanding, and being invested in me and my thesis. I am incredibly lucky to have you all, and I couldn't have done this without you.

Yahriel Salinas-Reyes 2023

Letter To Reviewers and Supporters – Thank You:

Dear Mentors, Peers, and Reviewers

I want to take a moment to express my deepest gratitude to each and every one of you for the profound impact you have had on my journey to becoming the person I am today. Your guidance, support, and friendship have been invaluable, and I can't thank you enough for being the pillars in my life.

To my mentors, your wisdom and guidance have been like a compass, steering me in the right direction and helping me navigate the complexities of life. Your belief in my potential and your unwavering support have given me the confidence to pursue my dreams and overcome obstacles. You have taught me the power of knowledge, the importance of resilience, and the value of continuous growth. I am forever indebted to you for shaping my character and shaping the course of my life.

You have shown me that the pursuit of goodness is a noble endeavor, even in a world filled with darkness. Your unwavering commitment to doing what is right has inspired me to stand up for justice, to fight for what I believe in, and to always strive to make a positive impact on the world around me. Your teachings have not only shaped my values but have also given me the courage to face challenges head-on and to never lose sight of my purpose.

To my peers, you have been my companions on this extraordinary journey. Together, we have shared laughter, tears, triumphs, and failures. Your friendship and camaraderie have brought joy and meaning to my life. Through our shared experiences, I have learned the importance of collaboration, empathy, and the beauty of diversity. You have challenged me to see the world from different perspectives, to question my assumptions, and to embrace the richness of human connection.

In our pursuit of knowledge and understanding, we have embarked on countless adventures, delving into the realms of literature, science, art, and beyond. Your passion for learning and your willingness to explore the unknown have inspired me to push my boundaries and to never stop seeking new knowledge. Together, we have celebrated the power of creativity and the transformative nature of self-expression.

Through your mentorship and friendship, I have discovered not only the world around me but also the world within myself. You have encouraged me to embrace my true identity, to celebrate my strengths, and to embrace my quirks. Your acceptance and support have given me the confidence to be unapologetically myself and to pursue my passions with unwavering determination.

Today, I stand as a testament to the impact you have had on my life. Every success I achieve, every obstacle I overcome, and every moment of joy I experience is a reflection of your influence. I carry the torch of knowledge, mentorship, and inspiration that you have passed on to me, and I am committed to paying it forward by being a guiding light for others.

Thank you, mentors and peers, for believing in me, for challenging me, and for always being there when I needed you. I am forever grateful for the profound impact you have had on my life, and I will carry your teachings and your friendship with me always.

With love, gratitude, and boundless admiration,

- Yahriel Salinas-Reyes

Yahriel Salinas-Reyes

As an individual, I have had the privilege to overcome adversity and provide support for the immigrant community in several ways. My journey has been a testament to resilience, and I am committed to using my experiences to make a positive impact on the lives of other immigrants. My personal background as an immigrant has greatly influenced my journey in the field of Aerospace and Aeronautical Engineering. It has instilled in me the values of resilience, determination, and the pursuit of knowledge. These values have been the driving force behind my academic and research endeavors. My relevant background and intellectual interests encompass a diverse range of experiences and expertise, which I believe uniquely positions me for a successful career in graduate studies and research. With a strong foundation in Aerospace and Aeronautical Engineering, I have delved into various interdisciplinary areas, including Data Science and Machine Learning. This multidisciplinary approach has allowed me to tackle complex problems and seek innovative solutions.

Growing up as an immigrant in the United States, I faced numerous challenges. Adapting to a new culture, learning a new language, and navigating the education system were not easy tasks. However, these challenges ignited my determination to succeed. I understood the importance of education in achieving my dreams and overcoming adversity. With unwavering commitment, I pushed myself to excel academically, often taking on additional coursework to catch up with my peers.

My dedication to education paid off as I pursued a degree in Aerospace and Aeronautical Engineering. This field, known for its complexity, pushed me to my limits, but I embraced the challenges. Through hard work and perseverance, I not only completed my undergraduate degree but also engaged in research and development experiences that broadened my horizons. My commitment to the immigrant community extends beyond my personal journey. I have actively participated in initiatives like the DREAM Iowa Scholarship, which provides support to immigrant students pursuing higher education. I understand the importance of these scholarships in opening doors for deserving students. Additionally, I have volunteered my time, providing mentorship to immigrant students who face similar challenges that I once did. In my community service with DREAM Iowa, I have also had the opportunity to document the stories of immigrant students. These photography and video testimonials have been a powerful way to showcase the resilience, dreams, and aspirations of young immigrants. By sharing their stories, we aim to inspire and empower others to overcome adversity and pursue their educational goals.

I have also been involved in various STEM outreach programs, particularly targeting underrepresented minorities. I believe in the importance of diversifying the STEM fields and making them accessible to all. Through educational initiatives and engagement with schools, I have strived to improve STEM education and promote scientific literacy, especially in underserved communities.

My proposed graduate research is in Yahriel's 4 A's: Aerospace, Anthropology, Applied Science & Technology, and Anatomy to unravel the complexities of Schizophrenia and Mental Health Innovation. By conducting research in the fields of Data Science, Machine Learning, and Modern Design of Aerospace and Propulsion Systems, I aim to contribute to the development of sustainable and efficient global solutions. Moreover, my work in Nanotechnology and Materials Science-Engineering has the potential to revolutionize the materials used in aerospace, making them more durable, lightweight, and environmentally friendly. My contributions to broader impacts extend to the scientific community. I have actively shared my research findings and experiences with other students and professionals. Through publications and presentations, I aim to advance knowledge within my field and inspire future generations of scientists and engineers.

In addition to my academic achievements, I have actively engaged in research and development. My work in Modern Design of Aerospace and Propulsion Systems has equipped me with a deep understanding of cutting-edge technologies and the ability to develop sustainable and efficient aerospace solutions. I have

also explored the realms of Nanotechnology and Materials Science & Engineering, contributing to the development of advanced materials that are pivotal in the aerospace industry.

One of the areas where I have made a significant impact is in Micro-electro-mechanical systems (MEMS). My involvement in MEMS research has led to the development of innovative solutions in various fields. Proficiency in Computer Science and Software Engineering, combined with knowledge of Computer and Information Technology Systems, has allowed me to leverage technology for aerospace advancements. My experience in Experimental Systems Engineering has been instrumental in designing and conducting experiments to validate theoretical concepts. Signals and Controls Systems Engineering, Expertise in Robotics, and Electrical Engineering form another dimension of my relevant background. These areas are essential in the development of autonomous systems and the integration of advanced controls in aerospace applications.

As I pursue my graduate studies, my future goals are ambitious and deeply rooted in advancing knowledge and benefiting society. I aspire to continue my research in Computational and Data-Enabled Sciences, exploring algorithms and theoretical foundations. The use of scientific computing and bioinformatics to solve complex problems in aerospace is a key part of my vision.

My commitment to broader impacts remains unwavering. I plan to engage in educational outreach, improve STEM education, and promote scientific literacy. I also aspire to foster diversity in STEM fields and develop partnerships between academia, industry, and other sectors. My long-term goal is to contribute to the economic competitiveness of the United States and enhance infrastructure for research and education.

In summary, my personal and academic journey, combined with my research contributions and community involvement, reflect my deep commitment to overcoming adversity and supporting the immigrant community. My experiences have shaped me into a dedicated and passionate advocate for immigrant students pursuing STEM fields. As I continue my graduate studies and research, I am determined to leave a lasting impact on both the scientific community and the immigrant community. My story is a testament to the power of resilience, and I am eager to pay it forward to help others overcome adversity and reach their full potential.

[Letter of Intent and Statement of Purpose]

Dear Professor and/or Esteemed Reviewer,

I trust this letter finds you well. **My name is Yahriel Salinas-Reyes**, and I am writing to express my deep enthusiasm for the possibility of pursuing a Ph.D. under your esteemed mentorship at your University/Institution . I am profoundly inspired by your influential work and the remarkable contributions of your research team.

During my undergraduate journey studying Aerospace Engineering at Iowa State University of Science and Technology, where I held the role of an Information Technology Specialist, I had the privilege of participating in diverse research projects funded by prestigious organizations like DARPA, SFP Programs, Boeing, and NSF. These experiences have allowed me to delve into a wide array of fields, including MEMS sensors, energy-absorbing composites, machine learning, piezoelectric devices, and more. Consequently, I have cultivated a strong foundation in scientific research methodologies and experimental systems engineering.

One area of keen interest to me is the exploration of natural physics in understanding mental health disorders, particularly schizophrenia. The intricacies of the human mind and the complexities of psychiatric representations of human ingenuity deeply fascinate me. My objective is to contribute to the development of a scientific methodology that can shed light on the science of madness and mental health, ultimately leading to enhanced treatments and support for individuals affected by schizophrenia.

Throughout my academic journey, I have demonstrated unwavering resilience and a relentless pursuit of knowledge. My interdisciplinary background, combined with my passion for research, positions me to make meaningful contributions to the field. I am dedicated to pushing the boundaries of scientific understanding and creating a positive societal impact.

I am drawn to your distinguished institution for its reputation in fostering groundbreaking research and providing a nurturing environment for doctoral students. The prospect of collaborating with brilliant minds and engaging in cutting-edge projects is highly appealing to me. I am confident that under your guidance, I will further develop my skills, broaden my horizons, and contribute substantially to the scientific community.

I would be honored to discuss my research interests and explore potential collaboration opportunities further. Attached to this letter is my curriculum vitae, offering a comprehensive overview of my academic achievements, research experience, and technical skills. I am also readily available to provide any additional information or references upon request.

Thank you for considering my application. I eagerly await the possibility of joining your research team and embarking on this transformative journey toward a Ph.D. I look forward to the opportunity to discuss my research aspirations and how they align with your ongoing projects.

With sincere gratitude and anticipation,

Yahriel Salinas-Reyes

Statement of Purpose - Intellectual Merit:
My research and career aspirations revolve around the convergence of mathematics, mental health, and neurodiversity. I am driven to pursue a Ph.D. in Neuroscience, specializing in Biomedical Data Science.

This interdisciplinary field provides a rich foundation for exploring the expansive realm of neural data and its applications in mental health research. My research objectives encapsulate the following key points:

1. Development of Innovative Diagnostic Tools: My goal is to devise mathematical models and algorithms capable of analyzing neural data, offering early diagnostic insights into mental health disorders such as depression, anxiety, and schizophrenia. The aim is to create non-invasive diagnostic tools that improve the early detection and intervention of these conditions.

2. Personalized Treatment Approaches: I seek to advance precision medicine in mental health by analyzing individual neural data. This analysis will inform the development of treatment algorithms that tailor interventions to a person's unique neural patterns, thereby enhancing the effectiveness of psychiatric treatments and minimizing adverse side effects.

3. Neurodiversity Advocacy: Beyond my research, I am dedicated to advocating for neurodiverse individuals within academia and society. I plan to collaborate with organizations and institutions to establish inclusive environments for individuals with diverse neurological profiles. My advocacy efforts will focus on fostering inclusivity, providing mentorship, and promoting the participation of neurodiverse individuals in STEM fields.

Concerning my career trajectory, I envision a path that involves academic research, mentorship, and advocacy. I aspire to become a professor and researcher, committing to advancing the frontiers of knowledge in neuroscience while fostering a supportive and inclusive academic environment for students of all backgrounds. My journey is one of resilience, transformation, and embracing neurodiversity, values I am determined to carry forward to positively impact the scientific community, reflecting the broader impacts that the GEM Consortium Fellowship aims to achieve.

Significance of the GEM Consortium Fellowship: Attaining the Fellowship would mark a pivotal milestone in my academic and career journey. This esteemed award seamlessly aligns with my goals, values, and aspirations. The significance of the GEM in my life can be summarized in several crucial points:

Financial Support: As a graduate student, I encounter challenges related to tuition, research expenses, and living costs. The GEM Consortium Fellowship would offer essential financial support, enabling me to fully concentrate on my research and academic pursuits without the burden of financial stress.

Validation of Commitment: Receiving the GEM support would validate my dedication to the intersection of mathematics, mental health, and neurodiversity. It would acknowledge the potential impact of my research and advocacy efforts, bolstering my confidence and commitment to these endeavors.

Research Independence: GEM encourages research independence. With this fellowship, I would have the freedom to explore innovative research questions, engage in collaborations, and contribute meaningfully to the scientific community.

Broader Impacts: GEM places a strong emphasis on broader impacts, a commitment I deeply share. Obtaining the fellowship would provide me with a platform to further my advocacy for neurodiversity and inclusivity in academia, ensuring that the scientific community celebrates diversity and empowers all individuals to succeed.

Professional Development: GEM offers opportunities for professional development, including conference attendance and networking. These experiences would enhance my academic growth and enable me to interact with leading researchers in my field.

In summary, the GEM is more than a financial award; it is a recognition of my potential to make significant contributions to science and society. It aligns seamlessly with my commitment to inclusivity, research innovation, and the pursuit of excellence. With this fellowship, I would be empowered to continue my journey, weaving the intricate threads of mathematics, mental health, and neurodiversity into a symphony that resonates with the broader scientific community. The Fellowship represents an opportunity for growth, impact, and collaboration that I am excited to embrace.

Conclusion: My journey reflects a commitment to academic excellence, innovation, and inclusivity in the scientific community. With an unwavering dedication to mathematics, neuroscience, and the broader impacts of my work, I am poised to leave an indelible mark on the world.

As I stand at the threshold of graduate research, I aspire to delve into the world of biomedical data science, seeking mathematical patterns in neural data to transform mental health diagnosis and treatment. I am

determined to advocate for neurodiverse individuals, ensuring that they find their place and thrive in STEM fields. GEM represents an opportunity to catalyze my journey, providing the financial and academic support necessary for my research and advocacy endeavors.

I am eager to become a part of the GEM community, where innovation, inclusivity, and academic excellence converge. It is with great hope and determination that I submit this application, inviting you to join me on a journey that celebrates the beauty of chaos, the power of mathematics, and the importance of neurodiversity. Together, we can transform the world, one neural pattern at a time.

Personal Statement - Intellectual Merit:

In the vast tapestry of human existence, I, Yahriel Salinas-Reyes, find myself intricately woven into a unique pattern, a testament to resilience, curiosity, and an unyielding pursuit of knowledge. I wear multiple hats—storyteller, poet, musician, engineer, and scientist. My life's narrative not only speaks to overcoming challenges but underscores the power of embracing neurodiversity, fostering inclusivity, and redefining obstacles as strengths.

Originating in the tranquil town of Iowa, where hidden treasures abound, my journey intersected with Don—an enigmatic individual, born without the ability to hear, much like myself in my earlier, deaf years. His eyes, full of wonder, served as a gateway to understanding reality. During a period of "existential fracturing," I sought solace in Don's wisdom, delving into the "music of silence." His mentorship reshaped my perspective, teaching me to find beauty and wisdom in life's quiet moments. Don's influence steered me towards a less-trodden path, one where I would seek knowledge beyond conventional boundaries. As my name, Yahriel, implies, I am free—free to explore the boundless realms of aerospace engineering.

Iowa State University and a later voyage to Caltech & Stanford marked the beginning of my intellectual odyssey, providing the intellectual tools to decode the mathematical language underlying the cosmos. Yet, it was the discovery of fractal mathematics that truly ignited my passion. Fractals, intricate patterns transcending the ordinary, became my canvas for curiosity, representing the junction between chaos and order—akin to my mind shaped by neurological diversity, in constant transformation from chaos to beauty. Navigating into the realm of Micro-Electro-Mechanical Systems (MEMS), I honed my skills in precision design and innovation. However, it was the interplay between order and chaos, exemplified by fractals, that captivated me. This fascination fueled a quest to understand, translate, and reveal the inherent beauty in mathematical patterns. In the academic arena, mentors played instrumental roles, guiding me through the labyrinth of academia and instilling the value of passing knowledge forward.

While my journey held moments of revelation and transformation, it also led me into the depths of darkness. Lost in chaos, my mother's unwavering support became my strength. Her question during challenging times, "What do you see in this darkness, my dear?" prompted my response, "I see what I want to see." This skill of transforming darkness into fresh starts became an asset in my academic pursuits.

An interdisciplinary approach unfolded as I integrated Applied Mathematics and Statistics with a passion for mental health. This intersection marked a unique avenue that I intended to explore further. In this journey, the power of mentorship and advocacy became evident. I recognized academia should be inclusive, celebrating diversity and empowering every individual to reach their full potential. My commitment extends beyond scholarship—I aspire to be a mentor and advocate for neurodiverse individuals, inspiring them to recognize their potential in the scientific community.

Personal Statement - Broader Impacts:

My unwavering dedication to neuroscience, particularly in the context of neurodiversity and mental health, propels my future goals. I aspire to pursue a Doctorate in Neuroscience, specializing in Biomedical Data Science. In this interdisciplinary domain, I aim to delve into neural data, extracting patterns from the chaotic symphony of neurons. By combining mathematics and neuroscience, I hope to contribute to novel diagnostic and therapeutic tools for mental health disorders.

The GEM Consortium Fellowship is a significant milestone I aspire to achieve, enhancing my educational pursuits and validating my commitment to the intersection of mathematics, mental health, and

neurodiversity. This esteemed award aligns seamlessly with my goals and values, emphasizing innovation and broader impacts.
Post-doctorate, I envision working in academic research, bridging the gap between mathematics and mental health. My career goals extend to mentoring and advocating for neurodiverse individuals, envisioning a future where inclusivity in academia is a reality. As I traverse the intersecting realms of mathematics, mental health, and neurodiversity, my journey mirrors a musical metaphor—an intricate blend of chaos and beauty, weaving discordant notes into a harmonious symphony.
Relevant Background:
My academic journey began at the renown ISU of Science and Technology, home of The Cyclones and Original Designers of the Computer, where I pursued a Bachelor's degree in Aerospace Engineering. The rigorous standards equipped me with essential skills for graduate school and beyond, exposing me to the mathematical intricacies underlying the cosmos.
A pivotal moment occurred with the discovery of fractal mathematics, leading to projects involving fractal-based simulations. This exemplified my commitment to extending mathematical boundaries and uncovering hidden beauty. Embracing an interdisciplinary approach, I bridged the gap between mathematics and mental health research, navigating challenges and contributing meaningfully to the scientific community.
My academic background reflects dedication to aerospace engineering and a passionate pursuit of mathematics, laying the foundation for excellence, innovation, and broader impacts on the world of science.

[Intellectual Framework]
Yahriel Salinas-Reyes' Intellectual Framework and Phases of Approach: The framework consists of two phases to unravel the nature of intelligence.
Phase I: Understanding The Divided Self and Existential Despair
Header: A Trip Through Insanity - a perfectly rational adjustment to an insane world.
Motivation: Schizophrenia cannot be understood without understanding despair. Children do not give up their innate imagination, curiosity, dreaminess easily. You have to love them to get them to do that.
Stage 1: Alogia – Poverty of Speech and Senses
Stage 2: Autism –Realism and Logicism
State 3: Ambivalence – State of Chaos and Hysteria
State 4: Affect Blunting – Emotionless and Expressionless
Outcome: Pandemonium and Complete Fracturing of The Self and Nature
Accessories: Mania and Madness, Paranoia and Delusions, Psychosis and Schizophrenia
Revelation: We are effectively destroying ourselves by violence masquerading as love. Whether life is worth living depends on whether there is love in life.
Phase II: Unraveling The Nature of Intelligence and Human Ingenuity
Header: Creative people who can't help but explore other mental territories are at greater risk, just as someone who climbs a mountain is more at risk than someone who just walks along a village lane.
Motivation: Madness need not be all breakdown. It may also be break-through. It is potential liberation and renewal as well as enslavement and existential death.
Stage 1: Youthfulness – Vitality and Radiance
Stage 2: Imagination – Idealism and Irrationalism
Stage 3: Curiosity – State of Wonder and Exploration
Stage 4: Dreaminess – Absorption, Abstraction, Distraction, and Forgetfulness
Outcome: Dawn of New Age and Realization of The Natural Self and Frontiers
Accessories: Peace and Tranquility, Freedom and Healing, Joy and Growth
Revelation: The range of what we think and do is limited by what we fail to notice. And because we fail to notice that we fail to notice, there is little we can do to change; until we notice how failing to notice shapes our thoughts and deeds.

[Human Ingenuity Statement]

Here is a simple sign that Yahriel Salinas-Reyes is a genius, not just talented but a true genius. It is a simple rule devised by the philosopher Schopenhauer who distinguished the difference between talent and genius as follows: he said talent hits a target no one else can hit, a genius hits a target no one else can see. What he meant is that talent is really good at outcompeting others. For example if you're talented at something you can do something with ease that other people find difficult. Whereas a genius has nothing to do with besting other people at something they've already established as being important, instead a true genius is about being so good at something that you're ahead of your time that other people don't know yet that what you're doing is important or valuable, and so the talented person is the one who is recognized for their skill. The genius Yahriel is the one doing something no one else can even conceive of doing. Talent hits a target no one else can hit. A genius hits a target no one else can see. Yahriel is one who can see the hidden world of wonders and the invisible grand mysteries of the universe.

[Summary of Research Proposal]

Project Funding Solicitations: For this project funding I will be soliciting various sources, namely, The NSF-Mercury Project ($20 Mil) Partnership for a degree proposal submitted by a faculty on my behalf; The NSF-GRFP; GFSD; DOE Computational Science Graduate Fellowship; The Google Fellowship; as well as Fulbright Open Study/Research Award X National Geographic Storytelling Fellowship, a joint-opportunity for a study abroad experience. https://www.ssrc.org/programs/the-mercury-project/nsf-mercury-project-partnership/ ; https://us.fulbrightonline.org/fulbright-nat-geo-fellowship

Synopsis: This new interdisciplinary field of study captures the essence of Human Ingenuity, focusing on the exploration of schizophrenia and psychosis and the idea that chaos theory and theory of confusion may serve a function rather than being solely detrimental. The project title also highlights the intersection of psychiatric thought, neuroscience, and social justice, emphasizing the potential global impact of this research. By using captivating and thought-provoking language as well as Anthropology-Engineering methods, the proposed scientific story aims to engage readers and spark their curiosity.

Project Title:

"How He Got His Scars: The Nature Physicist Explores Abnormal Human Ingenuity and the Science of Madness and Mental Health in Neurobiological Representations of Schizophrenia and Psychosis."

Summary:

In today's rapidly changing world, we often struggle to understand the present before it becomes the past. This proposal aims to shed light on the function of madness and chaos, not to undermine its toll on individuals, but to unravel the problem it is meant to solve. Building upon R.D. Laing's revolutionary theory that schizophrenia arises from the battle between our imposed identity and our authentic self, this research explores the possibility of insanity and confusion as a breakthrough rather than a breakdown. Laing theorised that insanity could be understood as a reaction to the divided self. Instead of arising as a purely medical disease or psychotic behaviors (i.e. a common sympton of schizophrenic traits), schizophrenia was thus the result of wrestling with two identities: the identity defined for us by our families and our authentic identity, as we experience ourselves to be. When the two are fundamentally different, it triggers an internal fracturing of the self. Comprehensively, the label of **Madness and Confusion is defined as a naturally sane reaction to an insane world**. By applying the concepts of entropy and chaos theory to model the dynamics of social-behavioral systems, we aim to study schizophrenia/psychosis and other neurological abnormalities, morphologies, and ingenuity of the human brain.

Despite the initial controversy surrounding Laing's existential perspective, there is immense value in delving into the personal, interpretive, and small-scale aspects often overlooked in traditional psychiatric narratives. We propose utilizing a fundamental method of studying neurobiological dysfunctions and abnormal functions/morphologies of the schizophrenic brain. This will help uncover correlations and causalities between the active phase-matter in schizophrenic traits and other related disorders.

The motivation behind this study stems from the world's failure to effectively utilize the groundbreaking discoveries in neuroscience, global public health, and social sciences. Through rigorous research and the development of a scientific method backed by advanced instrumentation, our objective is to provide foundational evidence for a clinical social understanding of schizophrenia and its related traits. This

paradigm shift, rooted in biomedical-analytical and logical-mathematical scientific theory, will facilitate the advancement of global public health.
To achieve meaningful impact, we must engage in a truthful dialogue free from knots of hatred, revenge, jealousy, and malice that taint our words. By exploring the history of indigenous and Latin American cultures, anthropology-engineering, science and technology, psychiatry and neuroscience systems, and social justice, we can create an open and inclusive platform for transformative research.
In conclusion, our research proposal "How He Got His Scars" aims to uncover the intricate relationship between madness and confusion, mental health, and the human brain. By merging scientific methods with social impact, we can pave the way for advancements in both individual well-being and global public health. It is high time we embrace this ancient paradigm of psychiatric thought, combining research and development with a deep understanding of cultural diversity, to drive positive change in society.
Other Relevant Coursework includes Latin American Anthropology: Race, Class, and Gender at Iowa State University Liberal Arts and Sciences as part of the U.S. Latino/a Studies Program.

[Research Abstract]
Research Title: *Unraveling the Neurobiological Landscape of Schizophrenia: A Multidisciplinary Approach Informed by Numbers, Shapes, and Prediction*
Abstract:
In the realm of advancing neuroscience, public and global health, molecular and biotechnology systems engineering, and biomedical data science and informatics, the enigma of schizophrenia stands as both a challenge and an opportunity for scientific exploration. This proposal seeks to illuminate the intricacies of schizophrenia through a rigorous scientific method, integrating the foundational elements of Numbers, Shapes, and Prediction into the fabric of our investigative framework.
1. Numbers: Data Capture and Monte Carlo Integration
Our scientific journey commences with an unwavering commitment to numerical precision. Employing state-of-the-art neuroimaging techniques, we will embark on an exhaustive data capture initiative. Through the meticulous acquisition of neuroanatomical, neurodivergent, and neurophysiological data from diverse populations, our objective is to construct an extensive and multidimensional dataset that encapsulates the nuanced dimensions of schizophrenia. This reservoir of data will form the bedrock upon which our mathematical modeling and scientific inquiries will be founded.
To navigate the inherent complexity of this venture, we will harness the power of Monte Carlo Integration techniques, effectively engaging probabilistic simulations. This methodological approach will enable us to traverse the intricate interplay of variables within the neural landscape of schizophrenia, accounting for the stochastic nature of neurobiological phenomena. By fusing data-driven insights with probabilistic modeling, our aim is to unveil the concealed patterns and emergent behaviors that underlie the neurobiology of schizophrenia.
2. Shapes: Mandelbrot Set and Fractal Geometry
In our pursuit of understanding, we delve into the realm of geometric complexity. Schizophrenia, akin to the enigmatic Mandelbrot set, manifests self-similarity across multiple scales. We shall leverage the mathematical elegance of fractal geometry to explore the recursive patterns inherent in neurobiological representations of schizophrenia. By quantifying the fractal dimensionality of neural structures and their aberrations, we aspire to elucidate the underlying geometrical signatures of this intricate disorder.
Fractal analysis will provide us with a potent lens through which we can discern the intricate geometries of neural connectivity, unraveling the non-linear relationships that define the topological architecture of the schizophrenic brain. Through the synergy of fractal geometry and neuroimaging data, our goal is to unearth novel insights into the spatial organization of neuroanatomical features, shedding light on the fractal nature of neurodivergence.
3. Prediction: Dimensional/Spectral Analysis to Understand Causality and Correlation
As we navigate the labyrinthine landscape of schizophrenia and psychosis, our scientific odyssey extends to the realm of prediction and understanding causality. Employing advanced dimensional and spectral

analysis techniques, we aim to disentangle the intricate web of causative factors and correlations that govern the neurobiology of schizophrenia.
Dimensional analysis will empower us to identify the critical dimensions that exert a profound influence on the emergence and progression of schizophrenic traits. By dissecting the spectral signatures of neural activity within these dimensions, we seek to unveil the underlying dynamics that govern causality within the realm of neurodivergence.
Our multidisciplinary approach transcends traditional psychiatric narratives, aligning with R.D. Laing's existential perspective that recognizes the value of personal, interpretive, and small-scale aspects often overlooked. Through the harmonious integration of Numbers, Shapes, and Prediction, we aspire to illuminate the neurobiological essence of schizophrenia, uncovering correlations and causalities within the active phase-matter of schizophrenic traits. This holistic understanding will not only advance scientific practice but also inform precise health diagnoses and innovative treatments, ultimately propelling the field of global public health forward.

In conclusion, our research endeavors to unveil the profound mysteries of schizophrenia through the seamless integration of mathematical modeling and multidisciplinary inquiry. By harnessing the power of Numbers, Shapes, and Prediction, we aim to transcend the boundaries of traditional psychiatric narratives, embarking on a transformative journey toward a deeper comprehension of neuroanatomy, neurodivergence, and the intricate web of neurobiological disorders. This pioneering approach holds the promise of ushering in a new era of precision medicine and enhanced global well-being.
Advancing Knowledge and Broader Impacts:
This research holds the potential to advance knowledge within the field of neuroscience by providing unprecedented insights into the neurobiological mechanisms underlying mental health disorders. By leveraging MEMS technology and interdisciplinary collaboration, we aim to uncover novel biomarkers, therapeutic targets, and personalized treatment strategies.
Furthermore, the broader impacts of this research on society are profound. Mental health disorders represent a global health crisis, with significant social and economic consequences. The development of precise diagnostic tools and innovative therapies based on the neurobiome's understanding has the potential to transform mental healthcare. It can lead to early detection, personalized treatments, and improved outcomes for individuals suffering from these disorders.
In summary, my proposed research at the convergence of precision engineering and neuroscience seeks to decipher the multiscale neurobiome, offering a new frontier in the understanding and treatment of mental health disorders. This interdisciplinary endeavor not only promises to advance scientific knowledge but also holds the potential to alleviate the burdens of mental illness, thereby making a significant societal impact.

[First let me ask you a question...What Came First: the Einstein or the Egg?]
[About The Author: Yahriel Salinas-Reyes :tophat: :trumpet:]
Yahriel is a "Universal Man" with knowledge and experience in many disciplines. Yahriel is a decorated champion of his community and today he finds work as a scientific researcher of nature physics and experimental systems engineering and is in pursuit of a PhD. Born in Iowa to undocumented immigrant parents, Yahriel had a unique experience and set of challenges growing up as he navigated a foreign society with no instructions included.
Was Albert Einstein born a genius, or did a fateful encounter result in the greatness of Einstein as we know him today? Yahriel Salinas-Reyes, an inquisitive youngster with a passionate and unruly mind, ascended through the **Aerospace Engineering program at Iowa State University of Science and Technology(Class of '23)** and eventually journeyed to the empire of Einstein at the California Institute of Technology (where Albert Einstein taught). Yahriel walked the same halls Albert Einstein once did and engaged some of the world's most powerful minds at work.
Yahriel had undertaken a number of different projects and work environments, but nothing could have prepared him for the new world he had just stepped into. While Yahriel experienced every challenge and

emotion possible, it enabled him to see the collateral beauty of his journey as he discovered the influential power of mentorship and glimpsed the truth of human ingenuity.
Graduate Degree Program Information Selections
- Inquiring Doctorate of Neuroscience and Biomedical Data Science/Informatics at Stanford University
- Inquiring Doctorate of History, Anthropology, of Science, Technology, and Society at Massachusetts Institute of Technology
- Inquiring Doctorate of Computational and Mathematical Sciences at California Institute of Technology
- Inquiring Doctorate of Applied Mathematics at Harvard University
- Inquiring Doctorate of Applied Science and Technology at UC Berkeley and Lawrence Berkeley Laboratories

[Draft] for Yahriel Salinas-Reyes
As a New American with a background in Aerospace and Aeronautical Engineering and a passion for advancing the frontiers of science, my journey has been defined by a relentless pursuit of knowledge, a commitment to innovation, and an unwavering dedication to contributing to society and my academic field. My experiences as a child of immigrants have shaped me into a curious, resourceful, and ambitious individual who is determined to make a significant impact in the United States.
Growing up in a family of immigrants, I witnessed firsthand the challenges and opportunities that come with pursuing the American Dream. My parents immigrated to the United States in search of better opportunities and a brighter future. They instilled in me the values of hard work, determination, and perseverance. These values have been my guiding principles in my academic and professional journey.
My passion for aerospace and aeronautical engineering began at a young age when I marveled at the wonders of space exploration. This fascination led me to pursue a Bachelor's degree in Aerospace Engineering. During my undergraduate years, I actively engaged in research and development experiences that spanned multiple fields, including Data Science and Machine Learning, Modern Design of Aerospace and Propulsion Systems, Interfacial Phenomena and Chaos Theory, Nanotechnology and Materials Science-Engineering, Applied Quantum Mechanics and Nature Physics, Thermodynamic Modeling and Finite-Element-Analysis, Signals and Controls Systems Engineering, Expertise in Robotics and Electrical Engineering, Computer Science and Software Engineering, Computer and Information Technology Systems, Experimental Systems Engineering, and Micro-electro-mechanical systems (MEMS).
One of my most significant achievements during this time was my research in MEMS, a field that merges mechanical and electrical engineering with nanotechnology. I developed cutting-edge MEMS devices, pushing the boundaries of what was possible in terms of miniaturization and performance. My work resulted in several publications and presentations, contributing to the advancement of this field. Moreover, it offered insights into the potential applications of MEMS in various industries, from healthcare to telecommunications, with the aim of improving lives and society as a whole.
My dedication to research and innovation was further demonstrated through my involvement in the development of advanced propulsion systems for aerospace applications. I conducted experiments and simulations to optimize propulsion technologies, making them more efficient and environmentally friendly. These endeavors underlined my commitment to advancing science and technology to benefit not only the field but also society at large.
Moreover, my strong background in Data Science and Machine Learning allowed me to analyze complex datasets and extract valuable insights. One of the highlights of my work in this area was predicting Olympic Triathlon results using machine learning algorithms. This research showcased the potential of data-driven approaches in enhancing sports performance, which can have a broader impact on the sporting community.
In addition to my technical skills, I am also deeply committed to fostering diversity and inclusion in STEM fields. As someone who has benefited from the opportunities in the United States, I have made it a personal mission to support and mentor underrepresented students in STEM. Through outreach programs, I have worked with young minds, inspiring them to pursue careers in science and engineering. I believe that a diverse STEM workforce is not only an intellectual imperative but also a social and economic necessity.
The significance of my research and broader impacts can be summarized as follows:

Intellectual Merit:

- My research contributions have pushed the boundaries of MEMS technology, making it more accessible and applicable in various domains.
- The application of Data Science and Machine Learning in predicting sports performance opens up new possibilities for enhancing athletic achievements.
- My work in aerospace propulsion systems demonstrates my technical expertise and innovation in advancing the field.

Broader Impacts:

- I am actively involved in outreach and mentorship programs, promoting diversity and inclusion in STEM fields.
- The MEMS technology I have developed has the potential to revolutionize various industries, from healthcare to telecommunications.
- My commitment to advancing science and technology aligns with the mission of the Paul & Daisy Soros Fellowships for New Americans program.

Looking ahead, my future goals are deeply intertwined with my commitment to advancing knowledge and benefiting society. I aspire to pursue a doctorate in the Division of Mathematical Sciences, specializing in Computational and Data-Enabled Sciences. This field aligns perfectly with my background in data analysis, machine learning, and mathematical modeling.

My long-term career goals include becoming a leading researcher in the field of computational sciences, where I can address complex real-world problems using cutting-edge mathematical techniques. I envision myself contributing to the development of novel algorithms, statistical models, and data-driven solutions that can have a profound impact on a wide range of fields, from healthcare to environmental sustainability.

In conclusion, my journey as a New American in the field of aerospace and aeronautical engineering has been marked by a relentless pursuit of knowledge, a commitment to innovation, and a dedication to making a difference in society. My experiences, research contributions, and commitment to diversity and inclusion all align with the goals of the Paul & Daisy Soros Fellowships for New Americans program. I am excited about the opportunity to further my academic and research journey and make a meaningful impact in the United States. Thank you for considering my application.

Yahriel Salinas-Reyes: My Journey as a New American

As a New American, my journey has been defined by resilience, ambition, and a relentless pursuit of knowledge. My experiences as an immigrant have not only shaped who I am but have also driven me to achieve remarkable milestones in the fields of aerospace and aeronautical engineering, rocket science, and data-enabled sciences. I am Yahriel Salinas-Reyes, and I believe that my story is a testament to the power of determination and the potential for broader impacts on both science and society.

I was born to undocumented immigrant parents, who escaped war and violence from El Salvador & Mexico and came to the U.S., in a strange new world called Des Moines, Iowa. While I was born in the U.S., I grew up as a foreigner traveler navigating the nuances of deeply multi-cultural paradigms. The transition to a new country or space presented challenges, but it also instilled in me the importance of adaptability and the value of education. Growing up in a multicultural environment exposed me to a wide range of perspectives and cultures, fostering my curiosity and open-mindedness.

My academic journey began with a fascination for aerospace and aeronautical engineering. This fascination led me to explore the intricacies of rocket science, where I delved into the world of propulsion systems and aerodynamics. I was determined to grasp the fundamental principles that allowed humans to explore the vastness of space. My relentless pursuit of knowledge and my deep-seated passion for the field led me to excel in my academic pursuits.

Throughout my academic career, I have been dedicated to pushing the boundaries of knowledge and innovation. My research and development experiences have been diverse and multidisciplinary, spanning several fields:

1. **Data Science and Machine Learning:** I applied data-driven techniques to optimize aerospace systems and develop predictive models.
2. **Modern Design of Aerospace and Propulsion Systems:** I contributed to cutting-edge design concepts that enhance aerospace efficiency.
3. **Interfacial Phenomena and Chaos Theory:** I explored complex behaviors at the interface of fluids, studying how chaos theory can impact aerospace engineering.
4. **Nanotechnology and Materials Science-Engineering:** I conducted research on nanomaterials for aerospace applications, focusing on their mechanical and thermal properties.
5. **Applied Quantum Mechanics and Nature Physics:** I delved into quantum mechanics and its applications in aerospace, seeking innovative solutions.
6. **Thermodynamic Modeling and Finite-Element-Analysis:** I developed models to simulate and analyze aerospace systems under various conditions.
7. **Signals and Controls Systems Engineering:** I specialized in control systems for aerospace vehicles, ensuring their stability and reliability.
8. **Expert in Robotics and Electrical Engineering:** I explored the integration of robotics in aerospace systems and developed expertise in electrical engineering for autonomous operation.
9. **Computer Science and Software Engineering:** I mastered programming and software development for aerospace simulations and control systems.
10. **Computer and Information Technology Systems:** I managed complex information technology systems essential for aerospace research.
11. **Experimental Systems Engineering:** I designed and executed experiments to validate aerospace concepts and prototypes.
12. **Micro-electro-mechanical systems (MEMS):** I researched MEMS devices and their applications in aerospace, contributing to advancements in sensor technology.

My commitment to expanding the frontiers of knowledge is further reflected in my academic achievements. My academic transcript attests to my dedication and rigorous pursuit of excellence. My involvement in research projects and my contributions to various publications and presentations showcase my drive to advance aerospace and aeronautical sciences.

Beyond my academic and professional accomplishments, I am deeply committed to making a lasting impact on society. I firmly believe in the power of science and technology to transform lives and address critical challenges. My experiences as a New American have shaped my broader impact goals, and I am actively working to make a difference in my community.

Currently, I am involved in initiatives to promote STEM education and mentor underrepresented students who aspire to pursue careers in aerospace and data-enabled sciences. I aim to inspire the next generation

of scientists and engineers, especially those from diverse backgrounds, to pursue their passions and contribute to the advancement of knowledge.

My journey as a New American has given me a unique perspective and a sense of responsibility. I am not only driven by my personal accomplishments but also by the broader impact I can make on society. I am dedicated to using my skills, knowledge, and experiences to advance the field of aerospace and aeronautical engineering and to inspire future generations to follow their dreams.

In my pursuit of a graduate education, I seek to further expand my horizons and engage in cutting-edge research. I am committed to advancing knowledge and contributing to the broader impacts on society through my work in the Division of Mathematical Sciences (DMS) in the fields of Computational and Data-Enabled Sciences, Algorithms and Theoretical Foundations, Scientific Computing, and Bioinformatics. I believe that the interdisciplinary nature of these fields aligns perfectly with my multifaceted background and will allow me to make a significant contribution to the scientific community.

My journey as a New American has been defined by a relentless pursuit of knowledge, an unwavering commitment to broader impacts, and a dedication to pushing the boundaries of science. I am excited about the potential to continue my academic and research journey, and I am eager to make a meaningful difference in the world through my work in aerospace, aeronautical engineering, and data-enabled sciences.

Yahriel Salinas-Reyes: My Path to Graduate Studies and Broader Impact Goals

My decision to pursue graduate studies in the Division of Mathematical Sciences (DMS) is rooted in a deep-seated passion for pushing the boundaries of knowledge and my commitment to making a broader impact on society. I am Yahriel Salinas-Reyes, and my academic and research journey has led me to the fields of Computational and Data-Enabled Sciences, Algorithms and Theoretical Foundations, Scientific Computing, and Bioinformatics.

Throughout my academic career, I have been driven by a thirst for knowledge and a desire to contribute to scientific advancement. My academic background in aerospace and aeronautical engineering has equipped me with a unique skill set that spans multiple disciplines. This interdisciplinary approach has not only allowed me to excel in diverse research areas but has also ignited my enthusiasm for computational and data-enabled sciences.

My current and near-term career-related activities are centered around my research and development experiences in various fields. I have actively contributed to the advancement of knowledge through my work in data science, modern aerospace design, nanotechnology, quantum mechanics, and more. These experiences have equipped me with a strong foundation in analytical thinking, problem-solving, and innovation.

My decision to pursue graduate studies in DMS is driven by several key factors:

1. **Passion for Interdisciplinary Research:** The Division of Mathematical Sciences offers a unique platform to combine my expertise in aerospace and aeronautical engineering with the power of mathematical and computational sciences. This interdisciplinary approach aligns perfectly with my academic journey and allows me to address complex problems in innovative ways.
2. **Commitment to Advancing Scientific Knowledge:** I am deeply committed to pushing the boundaries of scientific understanding. My career-related activities have already demonstrated my

ability to contribute to knowledge advancement, and I see graduate studies as the next step in my journey to make a profound impact on the academic and scientific community.

3. **Desire to Address Societal Challenges:** I believe that the fields of Computational and Data-Enabled Sciences, Algorithms and Theoretical Foundations, Scientific Computing, and Bioinformatics offer significant potential to address pressing societal challenges. Whether it's optimizing complex systems or developing innovative computational solutions, I am driven by the broader impact potential of these fields.
4. **Leadership and Mentorship:** I am passionate about mentorship and inspiring the next generation of scientists and engineers. Graduate studies will provide me with the platform to further engage in mentorship and inspire students, particularly those from underrepresented backgrounds, to pursue STEM fields.

In addition to my commitment to advancing knowledge within my field, I am deeply invested in making a broader impact on society. My current efforts in broader impacts include mentoring students, participating in STEM outreach programs, and actively engaging in initiatives that promote diversity and inclusion in STEM fields. I firmly believe that fostering diversity and encouraging underrepresented groups to pursue STEM is essential for the future of science and technology.

My broader career goals in research involve pushing the boundaries of computational and data-enabled sciences, developing innovative algorithms, and contributing to the development of scientific computing solutions. I am committed to addressing complex challenges and leveraging my expertise to make a positive impact on society.

As I embark on this next phase of my academic and research journey, I am excited about the potential to advance knowledge, make a broader impact on society, and inspire future generations. My experiences as a New American, my dedication to interdisciplinary research, and my commitment to mentorship have shaped my path, and I am eager to contribute to the Division of Mathematical Sciences.

In conclusion, my journey as a New American has been defined by a relentless pursuit of knowledge, a dedication to broader impacts, and a commitment to pushing the boundaries of science. I am ready to take on the challenges and opportunities that graduate studies in DMS offer, and I am eager to make a meaningful difference in the world through my work in computational and data-enabled sciences, algorithms, scientific computing, and bioinformatics.

Essay One (word limit: 1,000 words)

As a Global Scholar with triple citizenship (U.S., El Salvador, Mexico), my journey embodies diverse experiences that have profoundly influenced my identity and achievements. As a first-generation student and the child of undocumented immigrants, these experiences have significantly shaped my path as a dedicated graduate student pursuing a doctorate in Aerospace, Aeronautical, and Mechanical Engineering, with a profound passion for Computational and Data-Enabled Sciences. I firmly believe that my unique background, coupled with my unwavering commitment to research and broader societal impacts, positions me as an ideal candidate for the Paul & Daisy Soros Fellowships for New Americans program.

Growing up as a child of Mexican and Salvadoran immigrants in the United States, I witnessed my parents' unwavering pursuit of the American Dream. Their values of perseverance and determination became the bedrock of my character. Their struggles in adapting to a new country while providing for our family instilled a profound sense of resilience within me. This early understanding of the importance of hard work and education has been the driving force in my academic journey.

My story is a testament to the transformative power of education. It's the story of a young immigrant who, against all odds, pursued a passion for Aerospace and Aeronautical Engineering, embarking on a journey into the marvels of rocket science and research and development. These experiences underscore the power of dreams, persistence, and the role of education in transforming lives.

A pivotal moment in my academic journey was my exploration of the intricate world of Aerospace and Aeronautical Engineering. What might seem like science fiction to many became my reality. I embraced the challenges of innovating propulsion systems and delved into the complexities of aerodynamics. My research work in this domain not only honed my technical skills but also enabled contributions to advancements in the field. I had the privilege of working on projects poised to redefine the future of space exploration, resulting in multiple publications and prestigious conference presentations.

Beyond my contributions to Aerospace and Aeronautical Engineering, my interests extended to Computational and Data-Enabled Sciences. The transformative power of data science and machine learning in unraveling complex problems became evident. The fusion of these seemingly disparate fields allowed me to apply my skills in predicting outcomes, optimizing systems, and making data-driven decisions. Importantly, this interdisciplinary approach has practical applications extending beyond aerospace, encompassing areas such as healthcare, finance, and environmental monitoring.

My journey into STEM was further enriched by expertise in robotics, electrical engineering, computer science, and software engineering. Actively seeking opportunities to expand my skill set provided a holistic understanding of the technical world. Engagements in experimental systems engineering and micro-electro-mechanical systems (MEMS) opened exciting avenues for research and innovation.

I've not limited my academic pursuits to technical fields alone. A profound interest in the interplay of science and nature led me to explore nanotechnology, materials science-engineering, and applied quantum mechanics. The intricacies of interfacial phenomena and chaos theory fascinated me, pushing the boundaries of my understanding of the physical world. I've actively engaged in research projects in these areas, pushing the boundaries of our knowledge and contributing to scientific advancement.

While my technical background is extensive and diverse, my commitment to broader impacts is unwavering. I understand the significance of translating research into real-world applications benefiting society. One of my proudest achievements was developing a paper-based micro-electro-mechanical system (MEMS) with the potential to revolutionize healthcare diagnostics, particularly in resource-limited settings, enhancing healthcare access and affordability.

Participation in the Predictive Analytics and Machine Learning Lab enabled work on projects with tangible societal impacts. For instance, my research on predicting Olympic triathlon results through machine learning not only demonstrated data science's predictive power but also had practical implications for sports training and performance optimization.

Beyond my technical work, I've been dedicated to mentoring and inspiring the next generation of scientists and engineers. Through educational outreach programs, I've introduced young students to the wonders of STEM, igniting their curiosity and passion for learning. I firmly believe that inspiring and nurturing young minds is crucial for the future of science and technology.

In my current role as a doctoral student, I actively engage in research aligned with the societal objectives outlined by the National Science Foundation. My research in the field of Computational and Data-Enabled Sciences is intellectually stimulating and holds the potential to address pressing societal

challenges. By harnessing the power of data and computational modeling, I aim to contribute to the development of innovative solutions in fields like healthcare, climate change, and renewable energy.

My broader career goals in research and broader impacts center on becoming a leader in the field of Computational and Data-Enabled Sciences. I envision a future where I not only conduct groundbreaking research but also actively bridge the gap between academia and industry. My goal is to facilitate the translation of research findings into practical solutions benefiting society. I aspire to be a mentor and advocate for diversity and inclusion in STEM, ensuring that underrepresented voices are heard and valued.

In conclusion, my journey as a New American is a testament to the transformative power of education, dedication, and the pursuit of knowledge. My experiences in Aerospace and Aeronautical Engineering, combined with my forays into Computational and Data-Enabled Sciences, have molded me into a researcher and innovator deeply committed to broader societal impacts. I am profoundly motivated to continue my journey, pushing the boundaries of knowledge and contributing to the betterment of society through my research and leadership.

Essay Two (word limit: 1,000 words)

My current and near-term career-related activities and goals are intrinsically tied to my unwavering passion for research in the dynamic field of Computational and Data-Enabled Sciences. I've embarked on a transformative journey as a doctoral student within the Division of Mathematical Sciences (DMS), with a resolute focus on advancing the frontiers of knowledge within this domain. The decision to pursue this specific graduate program and institution is driven by an earnest desire to contribute to groundbreaking research, capitalizing on my distinctive interdisciplinary background in Aerospace, Aeronautical, and Mechanical Engineering.

The pursuit of a doctorate in Computational and Data-Enabled Sciences is a manifestation of my ceaseless curiosity and a profound aspiration to unravel intricate problems that shape our modern world. The paradigm shift towards data-driven decision-making underscores the paramount importance of extracting valuable insights from extensive datasets. I firmly believe that my diverse academic journey equips me with a unique perspective to tackle multifaceted challenges. My experiences in aerospace engineering have instilled in me a methodical and rigorous approach to problem-solving, while my immersion in the realm of data science has significantly broadened my toolkit for sophisticated analysis.

The DMS program aligns seamlessly with my career aspirations by offering an environment that fosters interdisciplinary research and the cultivation of advanced mathematical and computational techniques. It not only provides a stimulating academic milieu but also encourages collaborative efforts across diverse scientific disciplines. I am invigorated by the prospect of working closely with distinguished faculty members and engaging in research that transcends traditional academic boundaries, extending from pure mathematics to tangible applications in the physical and life sciences.

In the short term, my goals revolve around conducting research that capitalizes on mathematical modeling, computational simulations, and data analysis to address real-world challenges. One particularly captivating area of exploration for me is the intersection of computational mathematics and neuroscience. The intricacies of the human brain, a complex and enigmatic organ, present a monumental challenge in terms of understanding its functioning. My vision is to integrate my technical background with computational neuroscience, with the aim of making substantial contributions to this field, thereby enhancing our comprehension of the brain's complexities and its role in various aspects of life.

In addition to my research ambitions, I am ardently committed to actively participating in educational outreach programs that serve to promote STEM (Science, Technology, Engineering, and Mathematics) among underrepresented communities. This commitment stems from the profound lessons I've learned on my personal journey as a New American. I deeply understand the significance of mentorship and the imperative of providing opportunities to individuals who may face unique barriers in pursuing STEM careers. To this end, I intend to organize and lead workshops, seminars, and mentorship programs that are designed to inspire young minds and cultivate a profound appreciation for the realms of science and technology.

As I advance within my graduate program, I am resolute in my objective to fortify my network and expand collaborations with researchers and institutions that share my fervor for interdisciplinary scientific exploration. By forging strategic partnerships with experts hailing from diverse fields, encompassing neuroscience to applied mathematics, I aim to catalyze innovation and make a substantive impact in my chosen research domain. I firmly believe that collaboration is the cornerstone of scientific advancement, and I am wholeheartedly committed to building meaningful and mutually beneficial connections with kindred spirits in the realm of academia and beyond.

When envisioning my long-term career goals, I picture myself in a position of leadership within academia, research, or industry. My aspiration is to emerge as a recognized authority in the sphere of Computational and Data-Enabled Sciences, celebrated for pioneering research and an unwavering commitment to broader societal impacts. My overarching objective transcends the publication of influential research papers; it encompasses the active translation of research findings into tangible, practical solutions that bring about positive change within society.

I hold a particularly strong drive to explore the application of computational mathematics and data analysis within the domain of healthcare. The potential for data-driven medical diagnoses, optimization of treatments, and disease prevention is vast and transformative. My aim is to collaborate closely with healthcare professionals and researchers, fostering the development of innovative tools and algorithms that enhance patient care and elevate the efficiency of healthcare systems.

Moreover, I harbor a deep-seated commitment to championing diversity and inclusion within STEM fields. I firmly believe in the transformative power of diverse perspectives and the paramount importance of affording equal opportunities to individuals from all backgrounds. My vision encompasses active involvement in initiatives that are geared toward promoting diversity, equity, and inclusion, both within the academic sphere and the broader industrial landscape. I am unswerving in my resolve to serve as a mentor, a role model, and a vocal advocate for underrepresented minorities within the realm of STEM.

In summation, my decision to pursue a doctorate in Computational and Data-Enabled Sciences is rooted in an insatiable thirst for knowledge and an abiding passion for research. The selection of this specific graduate program and institution is informed by my commitment to honing my skills, immersing myself in interdisciplinary research, and collaborating closely with distinguished faculty members. My immediate and long-term goals are emblematic of my dedication to conducting impactful research, nurturing collaborative partnerships, and generating a profound impact within my chosen field. My personal journey as a New American has instilled in me a profound commitment to mentorship, diversity, and making meaningful societal contributions, principles that will serve as guiding lights throughout my career.

The Book of JOYBOY: Don Yahriel the Poet of Justice and The Music of Silence

An Existential Perspective: A Story of The Past and The Road To El Dorado

Title: The Tale of Don the Universal Man and Poet of Justice

Once upon a time, in a world teetering on the edge of chaos and beauty, there lived a young individual named Don. Don's life had always been a delicate balance between the light of joy and the shadow of despair. Little did he know that his journey would lead him to the profound secrets of the ancient paradigm.

One day, as Don navigated the labyrinthine corridors of his own mind, he found himself lost in a swirling darkness. The world around him had become a maelstrom of confusion, and he was adrift in a sea of uncertainty. This darkness, he realized, was not just the absence of light but the loss of all senses—physical, emotional, and spiritual. It was a place where he had lost touch with himself and the world.

In the midst of this profound confusion, Don's mother, whom he lovingly called "Mama," sat by his bedside. Her face, usually a pillar of strength, was etched with sorrow, and for the first time, Don saw tears glistening in her eyes.

"Tell me," she asked, her voice quivering with concern, "What do you see in the darkness? Is it all dark?"

Don gazed into the abyss and contemplated his response. "No," he replied, "It's not all dark. What I see isn't darkness that I can't really explain. I see everything and I see nothing."

Mama, her voice tinged with the weight of helplessness, confessed, "I don't understand, even though I am your mom... I feel powerless."

Summoning all the strength he could muster, Don took a deep breath and said, "I see what I want to see. I see the room, the table, and... I see you. I see you because I know you are here."

Mama's eyes welled up with tears of relief, and she held Don's hand tightly, realizing that in the midst of the deepest darkness, her presence was the beacon that guided him.

As Don continued his journey into the depths of his mind, he discovered the will to overcome the challenges that had surrounded him. In the silence of his thoughts, he repeated a mantra, first in Spanish, his native language, and then in English, reinforcing his resolve:

In Spanish : "El mundo no cambiará. Jamás cambiaré yo." (The world will not change. I will never change.)

In English : "I will be a gracious loser. Someone will undoubtedly take your place."

With each repetition, Don found the strength to navigate the complexities of his existence. He realized that resolve could transcend the boundaries of neurology and that the power of the human spirit, guided by the love and support of those who cared for him, could bring true joy even in the darkest of times.

And so, Don's journey continued, as he uncovered the immense power of an ancient paradigm—the ability to find light in the midst of darkness and the will to see beauty even when the world seemed ruled by chaos.

Odisea Del Gran Varón: Don Yahriel and His Promise To The Future

Title: Odyssey of Knowledge: Enigmatic Man's Quest

~"The man said to be so mad that he is sure no author could have invented him."

Once upon a time, in a world where the boundaries between reality and imagination blurred, there lived a man named Don Yahriel. He was not like any other man; he was a true enigma, a reflection of the ever-shifting line between sanity and madness. Don Yahriel believed that in a world where good and evil battled relentlessly, the time had come for good to prevail.

Don Yahriel was a man of deep conviction, driven by a belief that the balance between good and evil in the world needed to shift. He often muttered to himself, "For neither good nor evil can last forever; and so it follows that as evil has lasted a long time, good must now be close at hand." His mind was a whirlwind of thoughts, where the line between madness and reason blurred like a hazy mirage in the desert.

To Don Yahriel, the world appeared as a place where virtue was persecuted more than it was loved by the good, and he was determined to change that. In his heart, he carried the hope that goodness could triumph over evil, no matter how daunting the odds.

As he embarked on his odyssey, he encountered many challenges and obstacles that tested the very core of his sanity. "When life itself seems lunatic, who knows where madness lies?" he pondered. "Perhaps to be too practical is madness. To surrender dreams — this may be madness. Too much sanity may be madness — and maddest of all: to see life as it is, and not as it should be!"

Don Yahriel's obsession with reading and his relentless pursuit of truth pushed him to the brink of madness. He read voraciously, seeking to unravel the mysteries of the world. "Finally, from so little sleeping and so much reading, his brain dried up, and he went completely out of his mind," they said of him.

But Don Yahriel remained undeterred by the opinions of others. He believed that there was something good in every book, no matter how bad it might seem at first. "There is no book so bad... that it does not have something good in it," he declared. His belief in the inherent goodness of the world was unshakable.

As he ventured further into the unknown, Don Yahriel would often say, "Thou hast seen nothing yet." He was a man who had never truly died in his life, for his spirit burned brighter than ever as he delved deeper into the mysteries of the world.

Don Yahriel found himself immersed in the art of translation, trying to bridge the gap between languages. He believed that the truth could be obscured by the limitations of language. "Translating from one language to another, unless it is from Greek and Latin, the queens of all languages, is like looking at Flemish tapestries from the wrong side," he mused.

In his encounters with the downtrodden and the oppressed, Don Yahriel followed a strict code of chivalry. "It is not the responsibility of knights errant to discover whether the afflicted, the enchained, and the oppressed whom they encounter on the road are reduced to these circumstances and suffer this distress for their vices or for their virtues," he asserted. "The knight's sole responsibility is to succor them as people in need, having eyes only for their sufferings, not for their misdeeds."

Don Yahriel's journey was filled with moments of revelation and transformation. He realized that being a poet was a dangerous path, one that could lead to madness. "What is more dangerous than to become a poet?" he questioned.

As he ventured deeper into the realms of poetry and music, Don Yahriel believed that where there's music, there can be no evil. He found solace in the melodies of the world, and it was through music and poetry that he connected with the essence of humanity.

In the end, Don Yahriel's odyssey was not just a search for good in a world filled with darkness; it was a quest to find his own true identity. He had become the embodiment of the quote, "He is so crazy that it is certain no author could have invented him."

And so, the odyssey of Don Yahriel, El Gran Varón, continued, a journey into the depths of human nature and the boundless realms of the human spirit. For in his madness, he had found a kind of sanity that transcended the ordinary, and he had become the truest and most enigmatic of all humans.

The Secret of Don: An Immensely Powerful Idea of an Ancient Paradigm

Title: A Tale of The Past and Music of Silence

In a small, quiet town nestled in the heart of a picturesque countryside, otherwise known as Iowa the center of the U.S. and land of corn, there lived a man named Don. Don was known throughout the town for his wisdom and the secret he held within him. This secret was not just any secret; it was an immensely powerful idea, an ancient paradigm that had the potential to change lives.

As the sun set behind the rolling hills, casting a warm glow over the town, Don would often sit on his porch, listening to the soothing sounds of nature. The townspeople believed that the music of silence was the greatest mystery of the world, and Don embodied that mystery.

One evening, a young man named Yahriel, who had been struggling with the chaos and darkness in his own life, decided to seek out Don for guidance. He had heard whispers of Don's wisdom and the profound secret he held. With hope in his heart, Yahriel knocked on Don's door.

Don welcomed Yahriel into his humble home and offered him a seat. They sat in silence for a while, the only sound being the gentle rustling of leaves in the evening breeze. Yahriel felt a sense of peace wash over him, a tranquility he had never experienced before.

Then, Don began to speak, and his words carried a profound weight. "A story of a descent into darkness and chaos of the world, ruled by insanity and beauty, where I lose all senses of myself, everything, and anything; be it physical, emotional, or spiritual, but at the greatest, the pinnacle of all three and far beyond that."

Yahriel listened intently, his heart open to the wisdom that Don was sharing. He felt as though he was on the verge of a great revelation.

As Don's story continued, Yahriel couldn't help but be drawn into the narrative. It was a tale of inner turmoil, of battles fought and lost, and of the search for true joy and meaning in a world that often seemed bewildering.

After Don had finished speaking, Yahriel felt a deep sense of gratitude. He had found the resolve and will to seek true joy, not just externally, but within himself. Don's secret was not just an idea; it was a profound shift in perspective that allowed Yahriel to see the world in a new light.

Over time, Yahriel adopted Don's wisdom into his own life, and he, too, became known for his insight and ability to find joy in the simplest of moments. The townspeople marveled at the transformation in Yahriel, who had once been lost in darkness but had now found the music of silence, the greatest mystery of the world.

[Conversation with Mama]

In the midst of Yahriel's transformative journey, he received a message from his mother, whom he hadn't seen in a long time. She arrived at his doorstep, her eyes filled with tears, a shadow of her former self.

Yahriel invited her inside, and they sat down by his bedside. His mother, still visibly distraught, asked a heartfelt question in Spanish, "Dime, ¿qué ves en la oscuridad? ¿Es todo oscuro?"

Yahriel replied, "No, no todo es oscuro. Lo que veo no puedo explicarlo realmente. Veo todo y no veo nada."

His mother, with a voice that seemed to lack vitality, said, "No entiendo, a pesar de que soy tu mamá... Me siento impotente."

Yahriel took a deep breath and said, "Yo veo lo que quiero ver. Veo la habitación, la mesa... y te veo a ti. Te veo porque sé que estás aquí."

In that moment, a connection was rekindled between Yahriel and his mother. The darkness that had once enveloped them both began to recede, replaced by a glimmer of hope and understanding.

[The Will of Don: Resolve Beyond Neurology and The Music of Silence]

As Yahriel continued on his journey of self-discovery, he often found himself silently repeating a mantra in his native language: "El mundo no cambiará. Jamás cambiaré yo." In English, it meant, "The world will not change. I will never change."

He reminded himself that he would stay true to his principles and values, no matter the challenges that lay ahead. And in moments of doubt, he would say to himself, "Seré un buen perdedor. Alguien sin duda ocupará tu lugar," which meant, "I will be a good loser. Someone will undoubtedly take your place."

These words of resolve, passed down through generations, became his guiding light. They reminded him that true joy and strength came from within, and that he could navigate the chaos of the world with grace and resilience.

Yahriel's journey, inspired by Don's profound secret and his heartfelt conversation with his mother, continued to unfold. Along the way, he discovered the power of resolve beyond neurology, the strength to find true joy in the face of life's challenges, and the beauty of the music of silence in a world filled with noise.

I Am Yahriel Salinas-Reyes

A Chronicle of Unyielding Resilience and Illumination: Unleashing the Infinite Potential of the Human Soul

~ "How He Got His Scars: The Natural Physicist Explores the Science of Madness and Mental Health in Psychiatric-Institutional Representations of Schizophrenia and Abnormal Human Ingenuity."

In a world where the boundaries between reality and imagination constantly undulate, I unreservedly embrace my identity as Don Yahriel—an enigma striding with unwavering confidence along the ever-shifting frontier that delineates sanity from madness. My life's journey stands as a testament to the invincible spirit of humanity, an uncompromising quest for goodness in a world often enshrouded in darkness.

My odyssey was ignited by an unwavering belief that the eternal struggle between good and evil was a cosmic dance, and virtue often bore the brunt of persecution rather than celebration. Fueled by this conviction, I embarked on a mission to challenge this narrative and emerge as an unwavering champion of goodness.

Throughout this extraordinary voyage, I confronted trials that pushed the very boundaries of sanity. In a world that often seems engulfed in lunacy, I contemplated the fine line between practicality and madness. For me, true madness lay in relinquishing one's dreams and surrendering to life as it is, rather than as it should be.

My insatiable thirst for knowledge and my unflagging pursuit of truth propelled me to the precipice of madness. I immersed myself in the world of books, for each page held the potential to unlock the enigmas of our existence. To me, no book was ever unworthy, as I firmly believed that every text concealed a kernel of goodness waiting to be unearthed.

When confronted with the suffering of the oppressed, I adhered to an unwavering code of chivalry. My duty was not to pass judgment on their circumstances but to extend a compassionate hand to those in need, offering empathy exclusively for their pain, not their transgressions.

I delved into the intricate world of translation, endeavoring to bridge the gaps between languages, acutely aware that truth could be obscured by linguistic boundaries. Translation, to me, became a vessel to unveil the inherent goodness concealed within the rich tapestry of human expression.

As I ventured into the realms of poetry (Engineering/Technology) and music (Science/Art), I discovered solace in their harmonies, firmly believing that where music thrives, malevolence cannot endure. In these art forms, I communed with the very essence of humanity.

My journey was not just an expedition to unearth goodness in a world veiled by darkness; it was a profound exploration of my truest self. In my relentless pursuit of the extraordinary, I became the living embodiment of the saying, "He is so extraordinary that no author could have conjured him."

Reflecting on the odyssey of Don Yahriel, El Gran Varón, I now comprehend it as a voyage into the depths of human nature and the boundless expanses of the human spirit. In my perceived madness, I unearthed a form of sanity that transcends the ordinary, emerging as the truest and most enigmatic of all beings.

I am Yahriel Salinas-Reyes, and, like Don Yahriel, I've navigated a path adorned with complexities and uncertainties. Born to undocumented immigrant parents in Iowa, I confronted early challenges that stoked my determination to excel and surmount adversity. My fascination with the power of the human gaze, nurtured during a period of temporary deafness in my prenatal development, instilled profound empathy and an unquenchable thirst for understanding others.

My educational journey commenced with Aerospace Engineering at Iowa State University, eventually leading me to the esteemed halls of the California Institute of Technology. Here, I had the privilege of engaging with brilliant minds and discovered the transformative influence of mentorship. Every obstacle I encountered became a steppingstone for my personal and intellectual growth.

Amidst the splendor of my journey, I unearthed my purpose—a revelation that true freedom is not solely attained by acquiring knowledge but by sharing it and guiding others on their path to greatness. This epiphany became the guiding light of my life, propelling me to be a beacon of mentorship and knowledge.

As I embraced the essence of my name, originally signifying "He is free," (~The Arabic translation), I recognized that freedom extends beyond the personal realm; it's a gift meant to be shared. My journey, adorned with trials and triumphs, evolved into a wellspring of inspiration for all those I encountered. My legacy as a mentor and scholar continued to flourish—a testament to the enduring vitality of the human spirit.

In the end, my odyssey serves as a symbol of the indomitable spirit of human ingenuity—a profound reminder that, in the relentless pursuit of knowledge and unwavering dedication to one's dreams, true freedom is not an elusive mirage. I stand as living proof that even in a world where boundaries blur and the line between sanity and madness remains fluid, the human spirit can transcend, inspire, and brilliantly illuminate the path forward.

JOYBOY

~Don Yahriel: He That Is Free.

Writing Sample

Title: "Nature's Code Unveiled: A Revolutionary Fusion of Aerospace, Anthropology, and Neuroscience"

Author: Yahriel Salinas-Reyes, Universal Scholar, Doctoral Student.
~A Personal Account of Yahriel Salinas-Reyes as an Epic Tale of "Don Yahriel"

Prologue

In a world both chaotic and beautiful, Lived Don, a man of joy and despair, His life, a balance of light and shadow, Little did he know, a profound secret to bear. *Lend an ear for a story, a tale of Music and Silence, an idea of ancient paradigm, but modern and true. I will show you the way through This Cyclone you see. Do you Dare to join me, in this Grand Odyssey.*

So let this tale be a song, Of Don Yahriel, who dared to be strong. In the name of goodness, he did deploy, A legacy of love, the song of JOYBOY

Part 1: The Odyssey of JOYBOY

In a world where tales of old unfold, A saga of Don Yahriel, bold and untold. An enigma, a poet, a quest to be, A champion of good, for all to see.

In a realm where madness and reason entwine, Don Yahriel embarked on a quest divine. For he believed in a cosmic dance, Where goodness should triumph, given a chance.

With wisdom profound, his journey began, In a world where chaos and beauty ran. He pondered the line 'twixt sanity and strife, A realm where the practical met madness in life.

With books as his guide, he sought to explore, The mysteries of life, to seek to the core. No book was unworthy, he declared with grace, For goodness within, each tome did embrace.

When oppressed hearts cried out in their despair, Don Yahriel, with chivalry rare, Extended his hand, devoid of disdain, To offer compassion and relieve their pain.

In translation's art, he bridged the divide, Between languages, where truth could hide. He unveiled the good in diverse speech, A universal message, he aimed to reach.

In poetry and music, he found his reprieve, A sanctuary where malevolence couldn't deceive. In harmonies, he communed with humanity's heart, A realm where darkness could never impart.

In the end, his journey was not just a quest, To find goodness in a world so distressed. He uncovered his true self, enigmatic and bright, A testament to the power of inner light.

And now, in the present, the tale continues to unfold, In the heart of Yahriel, where stories are told. A mentor, a scholar, he's become the guide, For those who seek knowledge, in him, they confide.

Born of immigrant parents, in Iowa's embrace, He faced challenges, but with unwavering grace. His thirst for knowledge, an insatiable flame, He shares with others, to inspire and acclaim.

In the end, his odyssey stands as a decree, That freedom is found in the pursuit to be free. In a world where boundaries obscure and entwine, where day blurs into night, The human spirit soars, the dawn of our time will take flight, and its light will shine.

So, here ends the tale of Don Yahriel, you see, A beacon of hope for all to be free. In the grand tapestry of life's great ploy, He's known as the universal man, JOYBOY.

Part 2: An Ancient Paradigm

In a world of words and verses bold, A tale of Don Yahriel, I unfold. A poet, mad, with ideals grand, In a world where chaos did expand.

Don Yahriel, the enigma's name, A beacon of light in a world of shame. He saw a world where good must win, And so his quest did begin.

In a mind where madness swirled, He sought to change the cruel world. "Good and evil in a cosmic dance, Let goodness prevail, given the chance."

Books he read, a voracious thirst, For truth, he sought, in words immersed. "Every book, though dark or bright, Holds a gem of truth in its light."

Chivalry his code, to the oppressed he'd aid, Judgment he cast aside, their pain surveyed. "Help those in need, their suffering see, Not their misdeeds, but their humanity."

Languages he bridged, translation's art, To reveal the truth at language's heart. "In translation, a bridge we find, To share the goodness of humankind."

In music and verse, he found his peace, Where harmony's grace would never cease. "Where there's music, evil must flee, In the notes and words, the soul is free."

In his madness, a glimpse of sanity found, A true enigma on life's battleground. "He's so extraordinary," the people would cry, "No author could craft such a guy."

Now, I am Yahriel, in this world anew, A journey of resilience, a purpose true. Born to challenge, to rise above, In the name of knowledge and boundless love.

A mentor's path, a scholar's grace, Guiding others to find their place. For freedom's not just mine to keep, It's meant to share, in knowledge deep.

In the end, my odyssey's tale, A testament to the human trail. In a world where lines may blur, The spirit of humanity will endure.

So let this epic be a song, Of Don Yahriel, who dared to be strong. In the name of goodness, he did deploy, A legacy of love, the eternal JOYBOY.

Part 3: An Immensely Powerful Idea

In a world teetering on chaos and beauty's edge, Lived a young soul, Don, on a journey, a pledge. Balancing joy's light and despair's dark hue, Little did he know, ancient secrets he'd pursue.

The Tale of Don, The Universal Man And Poet of Justice

In swirling darkness, his mind did submerge, Lost in a labyrinth, a chaotic surge. But Mama, his rock, sat there by his side, Tears in her eyes, love she couldn't hide.

"What do you see in this darkness, my dear?" She asked, trembling with worry and fear. "I see what I want to see," Don replied, "In this room, on this table, and by my side."

Mama's tears flowed, relief in her heart, In the deepest of darkness, they found a fresh start. Don's resolve, his mantra, in Spanish and in English, To navigate life's complexities, to anguish diminish.

Odyssey of Knowledge: Enigmatic Man's Quest

Don Yahriel, a man of enigmatic grace, In a world of madness, he found his place. Believing in goodness, he journeyed with zeal, In the realm of sanity, his thoughts would often reel.

For Don Yahriel, the world was a stage, Where virtue was persecuted in this chaotic age. He straddled the line between reason and lunacy, In his pursuit of goodness, a quest of such audacity.

Books were his refuge, knowledge his guide, In their pages, the mysteries of life did reside. He'd say, "Every book, no matter how it may seem, Holds a nugget of goodness, like a hidden dream."

A Tale of The Past and Music of Silence

In a quiet town in Iowa, serene and sublime, Don held a secret, a treasure of his time. The music of silence, a mystical art, He shared it with others, a balm for the heart.

Yahriel sought Don, his heart full of strife, Knocking on Don's door, seeking wisdom and life. Don welcomed him in, they sat in silence's embrace, As nature's sounds whispered, a peaceful place.

Don spoke of a journey, darkness, and chaos, Of finding true joy, a path for both of us. Yahriel found resolve, a will to pursue, The secret Don held, a perspective so true.

I Am Yahriel Salinas-Reyes

Born to immigrants in Iowa, a tale of my own, Challenges faced, determination brightly shone. Aerospace engineering, a path to excel, At Caltech's halls, my journey would swell.

Mentorship's power, a guiding star so bright, Obstacles as stepping stones, towards the light. Freedom is knowledge, shared far and wide, Guiding others on their journey, side by side.

My name, "He is free," a purpose I'd embrace, Mentor, scholar, leaving a lasting trace. In a world where lines blur, sanity's thread, The human spirit soars, in every word and deed.

JOYBOY: Don Yahriel, He That Is Free

In the tapestry of existence, our stories entwine, Don Yahriel and I, two souls that shine. In the dance of chaos and beauty's grand deploy, We find the essence of life, we are JOYBOY.

Part 4: The Dawn of The Future

In the epic tale of Don Yahriel, the Poet of Justice, A man so enigmatic, his journey we discuss. In a world where madness and reason intertwine, He sought to bring goodness, let his light brightly shine.

Born to undocumented parents in Iowa's embrace, Yahriel faced challenges with unwavering grace. In the quiet countryside, he found a sage named Don, Whose secret held power, a paradigm to dawn.

The Music of Silence, a mystery profound, Yahriel learned its beauty on Don's sacred ground. As they sat in stillness, the world's chaos did cease, And Yahriel found peace in the gentle breeze.

In the depths of his journey, a truth did he see, A story of darkness, but also beauty's decree. In a place of confusion, where senses did blur, He clung to his mother, his guiding star so pure.

With resolve in his heart, he recited the creed, In Spanish and English, he planted the seed. To never give in to the chaos and strife, But to be a gracious loser, embracing life.

As Yahriel ventured forth, Don Yahriel's name, He embraced his own madness, stoked the creative flame. He believed in the balance of good and despair, And the boundless potential of the human spirit's flair.

He read books without end, seeking truth in each line, For in every tale, he saw goodness entwined. He transcended the limits of language and word, In the art of translation, his voice could be heard.

A knight of compassion, he held chivalry dear, Succoring the afflicted, devoid of judgment or fear. In poetry and music, he found his own soul, Where darkness and chaos couldn't maintain their hold.

In the end, Don Yahriel's odyssey unveiled, A man of great madness, his spirit unassailed. He discovered his true self, a beacon so bright, A testament to the human spirit's endless flight.

Yahriel Salinas-Reyes, a name to adore, From adversity's fires, he emerged even more. A mentor, a scholar, his legacy shines, A symbol of freedom, in these epic lines.

In the world's shifting boundaries, he stood so tall, A testament to the triumph of the human call. For in the quest for knowledge and dreams to employ, He became Don Yahriel, the eternal Joyboy.

Epilogue

Chapter I: The Journey Begins

In the labyrinth of his own mind, he wandered, Lost in a swirling darkness, adrift at sea, A world devoid of senses, confusion pondered, In this abyss, he sought to find the key.

Chapter II: A Mother's Love

Beside his bedside, Mama sat, eyes with tears, Her strength now faltered, sorrow in her gaze, "Tell me, what do you see?" her voice with fears, Don replied, "I see what my heart conveys."

Chapter III: The Power of Resolve

Amidst this turmoil, Don found strength within, A mantra, repeated, his spirit fortified, "The world won't change, I'll bear it with a grin, I'll be a gracious loser," he testified.

Chapter IV: Uncovering the Paradigm

Don's journey continued, profound secrets found, The ancient paradigm, light in the darkest hour, Guided by love, his spirit was unbound, In chaos, he discovered his inner power.

Chapter V: The Odyssey of Knowledge

Don Yahriel, an enigma, walked the line, Between madness and reason, he did tread, Seeking goodness in a world where evil's sign, In his heart, he bore the hope to spread.

Chapter VI: Madness and Books

Books his passion, knowledge he'd acquire, To unravel mysteries of life's grand scheme, In madness, he danced by the book's fire, For in them, he'd find his wildest dream.

Chapter VII: Chivalry and Empathy

To the oppressed, his code of chivalry held, Judgment aside, their suffering he'd embrace, Their pain, not their misdeeds, to him was spelled, In their plight, he found his rightful place.

Chapter VIII: The Power of Translation

Language, a bridge, he sought to mend, To reveal the truth beneath each word, Translating the wisdom others couldn't comprehend, In this pursuit, his vision clearly heard.

Chapter IX: Music and Poetry

In poetry and music, he found his solace, Where beauty thrived, evil had no room, Harmonies and verses, his spirit's palace, In their melodies, he'd dispel the gloom.

Chapter X: The Truest Self

In his odyssey, Don became the mystery, A living testament to the human soul's art, In his madness, he found profound history, A truth that transcended the ordinary heart.

Chapter XI: Yahriel's Journey

As the torch passed to Yahriel's hand, He embraced Don's wisdom, his heart aglow, In the music of silence, he'd understand, The world's greatest mystery, he'd come to know.

Chapter XII: A Mother's Reunion

In the midst of Yahriel's transformative quest, His mother's tears revealed the truth untold, Their reunion, a bond no pain could jest, Love and understanding, like pure gold.

Chapter XIII: Resolve and the Music of Silence

With a mantra of resolve, he'd persevere, The world unchanged, his spirit steadfast, A good loser, his heart held no fear, In these words, his strength would last.

Chapter XIV: The Legacy of Yahriel

Yahriel's journey, from darkness to light, Inspired by Don's secret, a shift in view, Resolve beyond neurology, a noble fight, In the music of silence, his spirit grew.

Chapter XV: I Am Yahriel Salinas-Reyes

Born to immigrants, in Iowa's embrace, His path paved with challenges, wisdom amassed, The power of the gaze, his soul's trace, In adversity's forge, he'd be unsurpassed.

Chapter XVI: Embracing Identity

From Aerospace Engineering to Caltech's grace, Mentorship's gift, a beacon of light, Each obstacle, a steppingstone to face, In sharing knowledge, his true might.

Chapter XVII: The Essence of Freedom

Named "He is free," his name's embrace, An epiphany, a revelation profound, Freedom shared, a guiding grace, A legacy of mentorship, his life unbound.

Chapter XVIII: The Invincible Spirit

Yahriel's odyssey, a testament true, To the human spirit, it boldly attests, In the pursuit of knowledge, dreams anew, True freedom's path, in hearts it rests.

Chapter XIX: The Eternal Enigma

And so, the tale of Don Yahriel, profound, An odyssey through madness and light, In the depths of the human soul, it's found, The truest enigma, shining bright.

Chapter XX: JOYBOY

Don Yahriel, he who is free, An eternal beacon for all to see, In the dance of chaos and beauty, His legacy lives on, a melody.