KALAGOTLA RAMA SAI NAGA SREEJA

STATEMENT OF INTENT

“Biology will relate every human gene to the genes of other animals and bacteria to this great chain of being.” said my middle school teacher quoting Walter gilbert. That is the first time that the inter-relation between all living forms in this eco-system intrigued me. I began exploring to know more about our eco-system and evolution of life on planet earth and read through any book that I came across that was related to biological sciences. The facts that I learned sparked my passion and paved the way for me to further explore my fascination with biology, the science of all life. Being a part of the 21st Century, having a lifestyle revolving around technology that has new enthralling developments every changing second, the fact that technology incorporated in biological sciences can open up new significant horizons in life sciences caught my interest, thereby leading me to pursue my fascination of this new field of Biotechnology through my bachelor’s degree.

During my Under-graduation studies, I developed a keen interest in recent progress in various ecosystem rehabilitation and pollution eradication techniques. Subjects such as Environmental Studies, Waste management, Industrial Biotechnology, and Developmental biology propelled my interests towards the field of Environmental Resource Management and Sustainable Studies. My under-graduation from SRM Institute of Science and Technology, Chennai, India, allowed me to get theoretical and practical hands-on training exposure on various Cellular, Molecular, Microbiology, Cell, and tissue culture laboratory techniques, which aided in my desire to assimilate maximum knowledge in the field of Biotechnology.

My zest to know more has always made me an active participant in technical and academic workshops. Going beyond precincts of the classroom, I have attended the “International Immunology Conference” held at SRMIST in 2019 where I interacted with a number of renowned researchers from all over the globe. I attained Management, Research, and Industrial Operational skills in Pharmaceutical Industry during my 3 months Summer training at Madras Pharmaceuticals, Chennai.

The drive-in me to make a significant contribution towards a healthy ecosystem as a whole led me to my first experience with research during my 3rd year of under

graduation studies, wherein I worked on a project titling “Identifying the toxic compounds (carcinogenic compounds) present in paper cups used to consume hot beverages”. One conclusion drawn during this research was that in minimal percentages there is leaching of Polyaromatic Hydrocarbons (PAHs) from the paper cup coating into the hot beverages consumed which on overconsumption for a long period can be carcinogenic to humans.

My thesis project at one of the very renowned central government research institutes, Centre for Cellular and Molecular Biology (CCMB), Hyderabad marks a

milestone in my bachelor’s degree. I endured an extremely competitive selection process for this opportunity and am privileged having been a part of a small and elite group of 10 students under the guidance of Dr. Manjula Reddy, Chief Scientist. My project involved the generation of the yciM gene (gene encoding a tetratricopeptide repeat of unknown function, regulates Lipopolysaccharide (LPS) levels) mutant library using Error-prone PCR and mutagenesis. My job responsibilities as a dissertation student involved setting up Error-prone PCR creating mutagenesis, transformations, Transduction, Cloning, Genetic and phenotypic studies. This thesis program has not only developed my research skills but also holistically developed my thought process towards science and additionally improved my work ethics and professionalism.

I started my professional career and am currently working as a Business Analyst for company Organo, pioneers in the development of future homes with a prime focus on Sustainability and Responsible living. I am excelling in work focussing on Product development, Business Planning, Strategy, and Implementation. I am presently handling the management of an education initiative of the company, Organo Et School, whose vision is to educate schools, communities, and corporates about Sustainability. This job has provided me with an opportunity to understand Sustainable systems and Sustainable Management.

My academic interest in a master’s degree is instigated by my long-term goal to invent and innovate a novel advancement to help in environmental resource management, which will not only add value to the quality of human life but would also be a big step towards retrieving our lost healthy and balanced ecosystem. I aspire to make significant contributions to top administrations such as Environment Canada and Alberta Environment and Sustainable Resource development. To reach my ultimate goal that is crafted out of my passion to conserve our eco-system, I need to further broaden my horizons in science, receiving exceptional training and guidance from the experts in the field, which I believe I will receive only through graduation from your esteemed University. I desire to attain a deeper understanding of our eco-system and maintaining Sustainable Systems to conserve our environment.

With my current education and experience, I am aware that I have only uncovered the tip of the iceberg in this field and as I dive deeper, I believe I can make significant contributions. I know that my best opportunity for achieving my goals is through the Master’s in Resource and Environmental Management program Dalhousie University as it will provide me with the foundational knowledge and techniques that I need to apply to manage complex processes in my field. The expertise that will be shared by professors, coupled with the extensive coursework and practical training of an inter- disciplinary nature that I receive will provide me with the necessary skills required to engage successfully in real-world projects in the sustainability industry.