HERITAGE INTERNATIONAL XPERIENTIAL SCHOOL

Manan Arora, a bright and relentlessly curious student from Gurgaon, has reached a significant academic zenith by securing admission to his dream institution, the University of Illinois Urbana-Champaign (UIUC), to pursue Aerospace Engineering. His journey is a compelling narrative of how intense intellectual curiosity, innovative research, and focused extracurricular leadership combine to create an exemplary profile, setting him firmly on a trajectory toward becoming a future pioneer in the aerospace sector.

An International Baccalaureate (IB) student at Heritage International Xperiential School, Manan's lifelong fascination with the mechanics of flight developed into a focused passion for aerospace engineering. This curiosity propelled him to excel in Physics and Mathematics, always seeking a fundamental understanding of the scientific principles that govern design and motion.

Innovative Research and Sustainable Impact

What truly distinguishes Manan is his ability to translate scientific theory into practical, impactful solutions. A cornerstone of his academic record is his published research paper on photonics in the Journal of Emerging Investigators.

This research centered on developing a "smart window" utilizing omnidirectional reflectors to selectively filter infrared (IR) radiation. The innovative goal was to drastically reduce household electricity consumption by minimizing solar heat penetration. This project perfectly merged his profound understanding of physics with a tangible commitment to sustainable innovation, showcasing both technical depth and a desire to address pressing environmental concerns.

Reflecting on his journey, Manan shared, "The comprehensive guidance from EZScholar was instrumental in articulating my diverse experiences and ensuring my application reflected my true potential. Their strategic advice helped me showcase the synergy between my scientific research, engineering competitions, and passion for social good, making my profile uniquely competitive for a top institution like UIUC. Their mentors brainstormed with me and helped identify the most relevant experiences for my admission essays. Additionally, the whole process helped me gain a better understanding of my future goals and my path.

Propelling Innovation:

Manan's Flight into the World of Aerospace

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I extend my heartfelt gratitude to EZScholar, whose support played a crucial role in helping me secure top admits."

Leadership on the Track and in the Lab

Manan's profile is further bolstered by his leadership and hands-on expertise in high-level engineering competitions.

F1 in Schools World Finals: As the Chief Engineer - Design & Manufacturing, Manan spearheaded his team, representing India at the World Finals 2024. Under his technical leadership—responsible for the mechanics, aerodynamics, and manufacturing processes of their miniature F1 cars—the team improved significantly, ranking 4th out of 93 participants in the 2024 National Finals, a testament to his persistent growth and precision. His rigorous work in CAD (Computer-Aided Design) and manufacturing simulations directly mirrors the aerodynamic principles he intends to master at UIUC.

Manan's dedication to technology extends far beyond the racetrack and into the realm of social innovation.

Project Kangri: Demonstrating exceptional proficiency in Artificial Intelligence, he founded this initiative under the Kangri Lok Parishad, focused on preserving Kangri—an endangered language in northern India. Utilising corpora and Natural Language Processing (NLP), he successfully trained a neural network transformer model to digitize the language, collaborating with a renowned NGO. This sophisticated project highlights his empathy and drive to harness advanced technology for critical social and linguistic preservation.

Fostering a STEM Community

Further showcasing his leadership and commitment to education, Manan founded the Ingenix STEM Society at his school. This platform rapidly became a hub for over 35 STEM enthusiasts, successfully preparing members for science competitions and fostering a collaborative, inspiring environment. His initiative empowered younger students to embrace science and technology with confidence.

Additionally, he served as the Chair of the Sustainability Council for The Alliance for Sustainable Schools (TASS), where he planned and implemented tangible sustainable practices within his school and organized awareness events. This well-rounded engagement underscores his ability to balance technical innovation with crucial environmental consciousness.

Looking ahead, Manan is enthusiastic to commence his studies at UIUC, a global powerhouse renowned for its cutting-edge research in aerospace engineering. Armed with a robust foundation in physics, design, AI, and a proven track record of innovative leadership, he is exceptionally well-prepared to embrace new challenges and contribute to future advancements in aviation and space technology. Manan's journey is a powerful demonstration of how passion, amplified by strategic guidance, truly prepares a student to leave their mark not only in the skies but in the wider world of scientific innovation.