

Dear Hiring Manager,

I am expressing my wholehearted interest in the Gen>NEXT Innovation Lab position at BMW Manufacturing Company. As an aspiring innovator and technology enthusiast with a strong academic foundation and diverse research experiences, I am eager to contribute my skills and expertise to your esteemed team.

My journey in Computer Science has been marked by a relentless pursuit of excellence, and my academic achievements reflect this commitment. Currently pursuing a Master of Science in Computer Science with a specialization in Artificial Intelligence at the University of Southern California, I have maintained a commendable CGPA of 3.75/4. My coursework, which encompasses a wide spectrum of subjects, including Foundations of Artificial Intelligence, Web Technologies, Natural Language Processing, and Deep Learning, has equipped me with a solid foundation in the field.

My undergraduate years at the National Institute of Technology Durgapur in India were equally transformative. Graduating with a Bachelor of Technology in Computer Science and Engineering with a CGPA of 9.1/10, I engaged in comprehensive courses ranging from Discrete Math to AI, Machine Learning, and Natural Language Processing. This diverse curriculum fostered a holistic understanding of computer science and prepared me for the challenges of the field.

I am currently engaged as an Artificial Intelligence Researcher at the USC Information Sciences Institute, where I have embarked on innovative projects that span the realms of AI and machine learning. My recent work involves the development of a privacy-aware question-answering system for mental health risk assessment, a project that garnered acceptance at ACL BioNLP '23. Additionally, I have constructed a groundbreaking Food Image to Recipe Generation pipeline, showcasing a significant improvement over the state-of-the-art, a paper that is currently under review at IEEE/CVF WACV '24.

My research journey has also taken me to Nanyang Technological University, where I led the development of Sea-Pix GAN—a pix2pix GAN tailored for underwater image enhancement. This project earned me a Certificate of Excellence from NTU and was featured in a paper that addressed color and contrast challenges in underwater image enhancement. Furthermore, my experience as a Research Intern at CSIR-CMERI saw me building a Random Forest Classifier for intelligent smoke alarms, a project that not only enhanced safety but also received the Best Paper Award at EWCIS 2020.

My projects span an array of domains, from implementing Deep Neural Networks from Scratch to developing a GO Game Agent with heuristic minimax search. Additionally, I have authored and co-authored papers in areas such as underwater image enhancement, mental health risk assessment, and intelligent fire detection, reflecting my dedication to contributing to the advancement of science and technology.

My technical expertise extends to various programming languages, including Python, C/C++, SQL, and Java, as well as frameworks such as PyTorch, TensorFlow, and HuggingFace. Proficient in tools like Firebase, AWS, and Git/GitHub, I possess a comprehensive skill set tailored to tackle complex challenges effectively. The opportunity to join the Gen>NEXT Innovation Lab is both exhilarating and aligned with my career aspirations. I am excited to work on innovative projects that push the boundaries of AI and machine learning, especially in areas like artificial intelligence, data science, and Metaverse technologies.

Thank you for considering my application. I look forward to the possibility of discussing how my background, skills, and enthusiasm align with BMW Manufacturing Company's vision for the future of mobility and innovation. Enclosed are the required documents in English: my Cover Letter, Curriculum Vitae, and Last University Performance Record. I am available to start work on March 25th, 2024, and commit until September 20th, 2024.

Sincerely,
Dhiraj Chaurasia