

STATEMENT OF PURPOSE

Ever since my introduction to the dynamic realm of evolving technology and computer science, I have been captivated by the relentless pace of innovation and its transformative impact on the world. My enduring interest in this field has been the driving force behind my academic journey, culminating in a Bachelor of Technology in Computer Science from the University of Engineering and Management, Kolkata ... East India one of the best Universities. Witnessing the ever-increasing scope and demand for technological solutions has only intensified my passion. Now, on the precipice of my academic journey, I am eager to pursue a Master of Computer Science to quench my thirst for advanced knowledge and expertise.

Embarking on my Master of Computer Science journey, I was immersed in a diverse array of subjects, each unveiling new dimensions of the technological landscape. While every subject intrigued me, I discovered a profound affinity for Software Engineering, Database Management, Operating systems, Data Structures, and algorithms. The intricacies of designing efficient software systems, managing databases seamlessly, and crafting elegant, scalable solutions resonated deeply with my intellectual pursuits. This academic exploration was bolstered by my robust performance during my bachelor's, where my unwavering interest in technology translated into a commendable 9.48 CGPA, reflecting my commitment to academic excellence in the field.

In my academic endeavors, I have actively engaged in projects that demonstrate my proficiency in applying theoretical knowledge to real-world challenges. Notably, I spearheaded the development of an End-to-end SQL Database Food Ordering Application, integrating React and PHP to optimize data handling and ensure a seamless user experience. My leadership extended to the Green Sight Project, where I excelled in Image Data Analysis, at the Smart India Hackathon. Additionally, I showcased my expertise in real-time fraud detection by working on a Full Stack Machine Learning Infrastructure, utilizing cutting-edge techniques and integrating diverse tools.

My dedication to honing my skills is evidenced by my certifications, each serving as a testament to my commitment to continuous learning. I hold a MyCaptain letter of appreciation for Java Programming and DBMS ELITE certification from IIT Kharagpur, showcasing my proficiency in core programming concepts. Additionally, Recognition from IIM Bangalore for a Development Workshop further validates my practical expertise. Complementing these are certifications from Coursera, including the IEM English Advanced Certifications, and numerous endorsements and professional certifications on LinkedIn, solidifying my credentials as a well-rounded and dedicated professional in the ever-evolving realm of computer science.

In my research pursuits, I delved into the intricate realm of efficient Full Stack Machine Learning Infrastructure for Real-Time Fraud Detection in Financial Transactions, culminating in a comprehensive paper and successfully making it to the Journal of Information and Computational Sciences. The other was Central Bank Digital Currency (CBDC) and Application Development. This scholarly endeavour afforded me profound insights into the workings and architecture of digital currency, with a specific focus on the nuanced landscape of CBDC Application Development.

Engaging in a spectrum of extracurricular activities, I contributed significantly to my personal and professional development. Volunteering for URECKON, the largest tech fest, I not only honed my leadership skills but also collaborated within the development tech team. Leading a group in a poster competition. Participation in the IIM Bangalore Full Stack Development Workshop deepened my understanding of real-world projects. Beyond tech, I visited a children's orphan home, sparking a commitment to social causes. My involvement in the Smart India Hackathon's Green Sight Project underscored my dedication to leveraging technology for environmental impact, emphasizing image data analysis for accurate tree detection in forest areas. Also, I got Selected for the final round of IIT Bombay Summer Internship.

My professional journey has been marked by diverse roles, reflecting my passion for creating impactful technological solutions. contributed to the development of Legalseva. In this capacity, I engineered robust web and mobile applications, optimizing online lawyer consultations and services. Transitioning to a role as a Senior Developer Intern, I continued to drive excellence by assisting junior interns and ensuring end-to-end product deliverables. Subsequently, as a Research Developer Intern in ICCW, I created a comprehensive website,

showcasing the digital team's works and optimizing it for performance across various devices and network speeds.

The pursuit of a master's in computer science aligns with my insatiable curiosity and passion for delving deeper into the dynamic and ever-evolving field of technology. This academic endeavour is not just a step forward in my career; it is a commitment to continuous learning and a desire to contribute to cutting-edge innovations in the realm of computer science.

Opting for the United States for my master's education is a strategic decision rooted in the country's renowned academic excellence, innovation hubs, and diverse technological landscape. The US, as a global technology leader, provides an unparalleled environment for immersive learning.

Selecting the University of Illinois Urbana-Champaign for my Master of Computer Science is a conscious choice driven by the institution's stellar reputation as a pioneer in technological research and education. UIUC's esteemed faculty, groundbreaking research facilities, and curriculum align with my interests in programming languages, systems and networking, and software engineering make it an ideal academic environment for my aspirations. The opportunity to join the university's Association for Computing Machinery, adds an extra layer of prestige and community engagement, enriching my overall academic journey. I am particularly excited about the prospect of working under the guidance of Gul A. Agha, renowned for his expertise in Areas of Programming Languages, Formal Methods, and Software Engineering, as I am keen to contribute to cutting-edge research in these domains during my academic journey.

My long-term vision encompasses leveraging my acquired knowledge and skills to venture into entrepreneurial endeavours in the technology sector. Simultaneously, I aspire to contribute to the innovation landscape as a software development engineer in industry giants such as Google and Amazon. By combining the entrepreneurial spirit with hands-on experience from leading companies, I aim to bring novel solutions to real-world problems, pushing the boundaries of technological possibilities and leaving a lasting impact on the ever-evolving field of computer science.