**STATEMENT OF PURPOSE**

Every day, I read news articles about artificial intelligence acting unethically or invading privacy. This deeply concerns me. Why are so many organizations prioritizing profits over people's rights? This disconnect between technology's potential to improve our lives and its misuse fuels my desire for change. How can we build powerful AI without sacrificing privacy? I believe we can, and I want to be part of the solution. Motivated by this, I founded “SocialXChange”, a privacy-focused digital asset social platform. We introduced the concept of "Dumb AI" which only learns from the data users willingly provide, making handling private information more transparent and secure. We aim to create a safe space where users enjoy freedom and privacy while ensuring the platform's security. I envision a future where AI and blockchain work together to create a decentralized, ethical, and transparent web that protects individual rights while fostering innovation. Integrating blockchain technology can democratize how the web operates, reducing the dominance of major tech giants.

My academic journey has been one of exploration and discovery. When I began my undergraduate studies, I had no experience in programming. Learning to code in my first semester gave me the power to build useful things. I started creating projects across various domains and freelanced to build web applications for startups, students, and clubs. Driven by inquisitiveness, I ventured into the stock market, attempting to develop an AI system for market predictions. Although I did not succeed due to the market's complexity, the experience taught me valuable lessons. I gained a deep appreciation for the multifaceted nature of stock markets, recognizing that factors such as economic indicators, political events, and market sentiment intricately influence stock prices. This realization underscored the importance of integrating interdisciplinary knowledge from finance, economics, and data science to build more effective predictive models. Through this endeavor, I learned that the accuracy and reliability of AI models are heavily dependent on high-quality data.

I delved into blockchain technology, exploring its various architectures and understanding the unique use cases each one offers. My journey began with mining cryptocurrencies, where I gained hands-on experience in the technical processes that sustain digital currencies. This led me to mint NFTs, allowing me to appreciate non-fungible tokens' creative and economic potential. To share my growing knowledge, I conducted seminars on blockchain at my college’s Association of Computing Machinery. These sessions helped my peers grasp complex blockchain concepts and reinforced my understanding of how and where blockchain can be effectively utilized. Additionally, I started two e-commerce businesses, managing all the technical aspects myself. Balancing these ventures with my academic pursuits was challenging, and I faced numerous setbacks. However, each failure was a valuable learning opportunity, teaching me resilience and the importance of continuous improvement.

In my third year, despite my efforts, I failed to secure an internship. Feeling like a jack of all trades but a master of none, I questioned my approach. Realizing I was spreading myself too thin, I decided to focus solely on academics for three months, reevaluating my priorities. This shift paid off when I secured one of the highest-paying job offers from my college. The next day, I reignited my entrepreneurial spirit by launching CornerInk, a web application that enables users to design and order custom merchandising, including apparel and promotional items. As the platform gained traction, handling numerous customer calls became challenging. To address this, I integrated an AI-powered chatbot into the site, which efficiently managed customer queries. This automation allowed us to stay lean while supporting our growth. The chatbot not only improved customer service but also freed up resources to focus on expanding our offerings. By consistently seeking opportunities to incorporate AI, I was able to enhance the user experience and streamline our operations. I developed CornerInk end-to-end, and within its first year, it achieved revenue of INR eight lakhs, serving corporations, colleges, and food chains. This experience taught me the importance of focus and strategic planning.

I have always been fascinated with solving real-world problems, and my academic projects reflect this passion. During the COVID-19 pandemic, I developed “CoviProtec**”**, a platform to streamline vaccine bookings for users and hospitals. I also built a hand sign recognition system to bridge communication gaps for the deaf community and a video lecture summarization tool with automatic quiz generation to support online education. These projects not only allowed me to leverage AI to create meaningful solutions but also strengthened my belief in AI's transformative power and ignited my passion for leveraging technology to develop scalable and efficient solutions.

Starting my professional career, I joined the Chief Technology Office at Wells Fargo as a Software Engineer. Working in observability and foundational automation introduced me to a new realm in fintech. My manager encouraged me to understand various products and integrate them to create value. I quickly built a dashboard that is now used globally by over 12,000 technology users and command centers to monitor critical applications like credit cards, ATMs, and payment systems, aiding in issue identification and decision-making. I also independently developed a self-service portal that automates the onboarding of applications into the logging ecosystem. This reduced manual workload by 80%. These projects earned me recognition at the leadership level, and I was given the opportunity to work across multiple teams. Since then, I have explored various domains, building automation, smart dashboards, anomaly detection systems, and AI models to automate tasks.

Working with diverse technologies and focusing on automation, I realized the vast potential of AI. However, I also became concerned that we might be ignoring the risks while focusing solely on the benefits. These experiences deepened my interest in AI ethics and safety. While I am excited by AI's rapid advancements, I am equally determined to address challenges such as data privacy, algorithmic bias, energy consumption, and the ethical use of information. For instance, the reliance on large datasets in AI raises significant data privacy and security concerns, necessitating robust protection measures to safeguard user information. Additionally, the potential for algorithmic bias can lead to unfair and discriminatory outcomes, highlighting the need for fairness and transparency in AI models.

Moreover, the substantial energy consumption required for training advanced AI systems poses environmental sustainability issues, urging the development of more energy-efficient algorithms. To mitigate these risks, I am particularly interested in exploring how blockchain technology can create decentralized methods of information collection and transfer, ensuring data transparency and enhancing accountability in AI systems. By integrating blockchain with AI, we can promote fairness, reduce centralized control, and foster a more equitable distribution of AI benefits.

Building on this commitment to ethical and responsible AI, I have been drawn to the work of Professor Cynthia D. Rudin at Duke University, whose focus on interpretable machine learning resonates with my desire to develop AI systems that are both transparent and impactful. Equally noteworthy is her advocacy for replacing black-box models with interpretable alternatives, challenging the notion that performance must compromise explainability. Likewise, Professor Kartik Nayak’s research in blockchain technology, applied cryptography and distributed computing aligns with my goal of building secure and privacy-preserving systems. His work on robust and efficient blockchain protocols and privacy-preserving computation is crucial for decentralized AI applications. I am particularly fascinated by his innovations, such as Sailfish and He-HTLC, which demonstrate the potential for scalable, trustworthy consensus mechanisms. Collaborating with him would allow me to delve deeper into designing blockchain solutions that uphold user rights while fostering trust and transparency.

In the short term, I aspire to build a startup that leverages Ethical AI and Blockchain to serve everyday users, fostering safer and more accessible digital ecosystems. I aim to establish open-source, decentralized mechanisms for creating ethical AI and data applications. In the long run, I plan to lead initiatives to develop a more ethical landscape for AI applications, ensuring that technology serves humanity equitably.