

## STATEMENT OF PURPOSE

In a world of constantly evolving technology, my journey into the world of computer science began with an experience that would be considered quite ordinary today : my first online purchase. As I pressed the “Buy Now” button, I was filled with the rush of making a new purchase, but at the same time there was also this sense of wonder. I kept thinking about what went on behind the scenes, that a simple click of a button would result in a package arriving at my doorstep. This curiosity which was sparked in me that day would later shape my academic and career aspirations.

I took up the science stream during my junior college where I had the chance to learn computer science as a vocational subject. Here I learned about the basics of computer programming, how code written in human-understandable language is converted into machine-bytecode by compilers and then into electrical signals to carry out different operations. I learned the basics of computer architecture and how hardware and software are integrated to carry out simple functions such as a “click” on the GUI.

Being from a middle-class family my exposure to computers was limited and hence it was difficult to grasp some of the concepts being taught in the class initially, but I made up for what I lacked by putting in persistent efforts and being proactive, I used to visit the lab after hours so that I could work upon my programming skills and get a deeper understanding of the concepts. I graduated from junior college with good grades and computer science was one of the subjects where I was the top scorer with 188 out of 200 marks.

I am currently doing my undergraduate in Computer Science from MES Wadia College of Engineering, Pune. Here, during the freshman year of my programme I had the opportunity to learn the fundamentals of programming and data structures and how it could be used in problem solving, I was especially interested in the subject of data structures and how different data structures could be used in different scenarios according to their characteristics to solve specific problems. As I had learned about some of these concepts before I used to explain these to my classmates and this helped me gain a deeper understanding of the subject. It was during this period that I learned about blockchain technology when I selected the topic of my freshman PBL(Project Based Learning) subject.

I was really impressed by the potential of blockchain technology to enhance security, transparency and trust in digital systems. I got to know about the wide range of applications block chain has from its foundational role in establishing crypto currencies to its extension into supply chain, healthcare, and finance and beyond. I think this is not only a technological innovation, but it's a revolution which is going to change how we interact with data and assets in the digital realm. To get a hold of how this technology works I started looking for courses online, ending up on a blockchain course titled “Ethereum and Solidity: The Complete Developer's Guide”. The content of this course included the basic terminologies related to blockchain along with working of a basic blockchain. By the end of this course it was also mentioned that we would be creating an application that would incorporate cryptocurrencies created by ourselves.

However I soon learned that I lacked the basic skills to proceed further with the course as I was faced with the obstacle of getting accustomed to Node.js which is a javascript library

used in backend. I was really anxious and frustrated for not being able to proceed further with the course so I turned a helping hand to my brother who is a proficient full stack developer. He advised me to learn about web development before proceeding further in the blockchain course. This was the point where I started learning and delved deeper into the world of computer programming.

I started another course titled “The Complete Web Developer in 2023: Zero to Mastery” which provided a detailed overview on the concepts related to Web Development. This course contained topics such as html5, css, javascript, node.js, react.js, github and much more. I started learning how to create fully functional websites, mastering the ReactJS framework for front-end development and building robust backend servers using NodeJs which handled API calls and also seamlessly interacted with databases, allowing for data storage and modification. This experience proved invaluable in developing my technical and project management skills, setting the stage for my future endeavours in computer science.

As of now, I'm building a fully functional site that uses react.js to leverage the skills that I acquired during the web development course. I am also a major contributor for a github named “SPPU - Second Year - Computer Engineering - Content”, an account that offers codes, writeups, lab-manuals, question papers, question banks, assignments and many other resources for 2nd Year students. Not only am I becoming more and more familiar with how github works I'm also establishing connections with people with similar mindsets that will surely push me ahead given that I maintain good relationships with those individuals. I also learned about ssh/gpg keys and encryption of git commits after my colleague encouraged me about getting used to these concepts.

Despite being very active academically, I was equally passionate about sports, especially soccer. Being a very competitive person, the game provided me with an outlet for my competitive spirit, and allowed me to push and exceed my boundaries and fostered personal growth. As an introverted individual, stepping onto the field and playing in front of a crowd and securing victories helped me bolster my confidence, and taught me the transformative power of stepping out of one's comfort zone. I am also part of the college football team and am actively participating in Zonal competitions and practice matches.

Considering the combined technical knowledge I have amassed during my two years of engineering, my experience getting accustomed to web development and learning about the blockchain technology and its potential to create digital platforms which are more secure, interoperable and private. I am driven to amalgamate these skills together into a cohesive career for the future. My goal is to become a blockchain developer developing decentralised applications capable of revolutionising the current industry standards. These applications have the potential to make digital platforms more secure, interoperable, and private, making trustless, censorship-resistant, and globally accessible software solutions a standard, shifting the ownership and control of any digital information from centralised entities to a distributed network of users. However I firmly believe that mastering these skills begins with mastering the basics. Blockchain technology is built upon the fundamental concepts of computer networking, cryptography and distributed systems. Consequently, I am convinced that pursuing a master's degree in computer science is a crucial step towards gaining a comprehensive understanding of these core concepts, providing me with a competitive edge and the foundation to excel as a blockchain developer in the future.