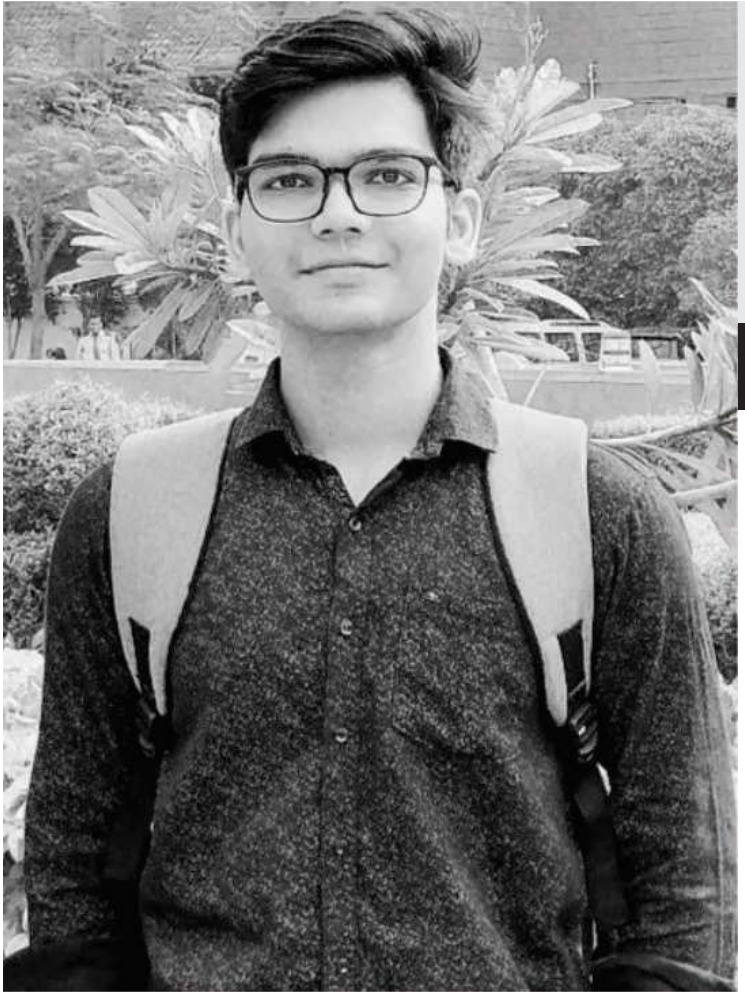

Ashish Kumar Verma

"If you don't sacrifice for what you want to achieve, then what you want to achieve will become that sacrifice."

Ashish Kumar Verma, a seventeen-year-old student of Dr Rajendra Prasad Kendriya Vidyalaya, Rashtrapati Bhavan, has won national recognition in the field of Web Technologies. He has a strong interest in web technologies, artificial intelligence, and the core sciences, along with machine learning. Ashish is well-known for his app called "Navya AI", which uses AI to perform various tasks like creating images, voices, videos, and more.

His impressive achievements include winning a National Winner Bronze Medal in World Skills India and has won many coding competitions and Hackathons. He has also received numerous awards for his work. Ashish has published three research papers and has been invited to speak at prestigious events. He even had the honour of hosting a discussion called "Pariksha Pe Charcha" with the Hon'ble Prime Minister of India, Shri Narendra Modi. Furthermore, he is recognized as an Intel AI4 Youth Leader, an NITI Aayog student mentor, and a Microsoft Beta Level Community Leader.

Could you please share the story of how your coding journey began and what sparked your passion for it?

Back when I was in the seventh grade, I used to play PUBG, just like many students did in 2017 and 2018. While I was playing, I often got scolded for it. My father, noticing this, said, "Instead of playing these games, why don't you learn how to create them? You can make them even more enjoyable than PUBG." I found that idea intriguing, so I decided to give it a try. Then I learned my first language "PYTHON". After getting into coding, I participated in my first competition, which was Google's Code to Learn. Surprisingly, I ended up winning the competition and became the all-India winner. My prize was a new laptop. Encouraged by this success, I continued to pursue coding. I

Contd.

even entered a Hackathon, which was originally intended for college students. Despite being just an eighth grader at the time, I managed to earn a silver medal in the competition. My coding journey kept moving forward from there. Throughout this journey, my mentors, school teachers, and, most importantly, my parents and family members played a significant role in supporting me in every way they could. My part in this was to give my absolute best, and I am deeply grateful to all the people who have supported me along the way.

Can you give me a detailed note about Navya AI?

I started experimenting with various technologies, and the primary reason I created Navya AI was my desire to learn about AI, which is currently a rapidly growing field. What struck me was that many AI start-ups were charging exorbitant fees for seemingly simple AI services, such as image generation. You can find image generation tools readily available on the internet, but some people end up paying for them just to have the convenience. These tools often come with high price tags. So, my main goal in creating Navya AI was to democratize AI technology. I wanted to make these powerful tools accessible to ordinary individuals without any cost. You don't have to open your wallet; you can use these services on your servers. Many are familiar with AI avatar generation tools that charge more than Rs. 4000 for just fifteen minutes of use. I found these AI services overpriced for what they offered. What I've created is a free app that combines various AI technologies into one place. It includes AI creation, video generation, avatar generation, and even voice generation to produce human-like voices. Currently, I'm working towards turning this project into an open-source initiative once it's fully developed. The ultimate aim is to make all of these services available to everyone for free and make everyone AI literate so everyone can learn how to make use of basic things to enhance their productivity.

What difficulties have you encountered in your endeavours?

My parents have been incredibly supportive throughout my journey. Whenever I faced challenges, they were always there to help me. One major challenge I encountered was my initial reluctance to actively participate in tech communities. I used to believe that I could learn everything on my own. These communities, like the Google Development Festival and Microsoft Learning Community, offer valuable resources and knowledge on a broader scale. It was a mistake on my part to assume that I could do it alone because I soon realized that I couldn't learn everything independently. Tech communities play a crucial role by curating and providing filtered information on various technologies, enabling individuals to learn and achieve remarkable things. I now firmly believe that anyone in the tech field should be part of a community. Not only should they learn from these communities, but they should also contribute back to

Contd.

them. That is precisely what I plan to do in the future. I'm currently leading multiple sessions on how to transform AI research papers into practical code implementations. What many companies are doing is taking these complex research papers and turning them into real-world applications. This can be daunting for many, but the key is that it's achievable, and I aim to make AI accessible to everyone, ensuring that everyone can benefit from it.

What guidance do you have for aspiring young individuals looking to kick-start their careers in coding?

I always emphasize that this principle applies to people in any profession, not just coders. I firmly believe that individuals in any field, whether it's coding, teaching, or any other occupation, should adopt a researcher's mindset. If you're a coder, explore new coding methods; if you're an educator, discover innovative teaching approaches; if you're a student, find novel ways to enhance your learning experience. Additionally, it's crucial to share your findings and insights through blogs and other platforms. Being a researcher doesn't necessarily require a formal PhD. I'm in the twelfth grade, and I've already authored many research papers from basic general-purpose research to Quantum Computers. You can conduct research without significant limitations in today's era. We have access to a wealth of high-quality information freely available online. The key is to harness this vast resource and take action. With the internet at our fingertips, learning and conducting research has become more accessible than ever before.

To what extent do you believe parents play a pivotal role in shaping their child's career trajectory and overall professional growth?

I fully understand the pivotal role my parents have played in my life. If they hadn't guided me and steered me away from excessive gaming, my life might have taken a very different path. I can't imagine where I would be now. In my view, the role of parenting is incredibly important in a student's life. I've observed that some of my classmates face a different kind of challenge. Their parents, while caring, tend to be more restrictive. They encourage their children to follow the conventional path of excelling in academics, obtaining a degree, and then pursuing other interests. However, what often happens is that these students lose their creativity and enthusiasm along the way. When I was working on creating my app, there was a conventional belief that I couldn't develop it at such a low cost. However, I firmly believe that the word "impossible" itself contains the message "I'm possible." So, I didn't dwell on whether it would succeed or not; I simply put in the effort. For an entire month, I devoted myself to this project, even setting my studies aside. Fortunately, my parents supported me because it was during my vacation, and I was engaged in a productive endeavour. I think parents must understand that they shouldn't stifle their children's desire to explore new things. Simultaneously, children should recognize the importance of following conventional paths, as they can also be valuable. The message of balance and

Contd.

understanding should reach both parents and children. Speaking of time management, if you feel you can't pursue various interests, it's often possible to create more time by eliminating time-wasting activities like endlessly scrolling on social media, watching excessive TV, or playing games. By reclaiming those hours, you can invest that time in exploring new activities and expanding your horizons.

What is that one achievement that you are proud of?

The accomplishment that brings me the greatest sense of pride is my contributions, rather than my achievements. By contributions, I mean the various projects I've created that help society, the blog articles I've written, the guidance I provided, and the sessions I have taken that add value to people's lives. I take greater pride in these endeavours compared to my achievements, because these contributions extend beyond me as an individual. They have a positive impact on society, and that's what truly matters to me.

I firmly believe that people will remember you for the positive changes you've brought to their lives through your contributions rather than for your achievements. While personal accomplishments are important, what holds even greater importance is giving back to the society from which you've also benefited.

Where do you see yourself in the future?

I'm committed to continuing my research path on multiple technologies and connecting with a wide range of individuals, particularly with Gen Z. I believe this generation has the potential to be the most productive and intelligent, but, unfortunately, it often appears quite the opposite. Gen Z is currently one of the most perplexed generations, not because they lack opportunities, but because they are overwhelmed by an abundance of opportunities, a constant overload of information and a reduced attention span due to today’s technology. I'm in the process of researching why they're experiencing this confusion in today's world. Despite having a multitude of educational resources at their fingertips, many Gen Z individuals are squandering their time on platforms like Instagram and YouTube. They lack a clear vision for their future, unsure of what lies ahead in five or ten years and suggest some ways to stop this. My plan moving forward is to intensify my research efforts and contribute as much as possible to our community. I aspire to drive innovation and engage in research activities. My ultimate goal is to develop new software and innovate in various fields for drug discovery, a field that became crucial during the COVID-19 pandemic, where we witnessed the challenges of discovering effective drugs. I aim to merge the power of computers and core sciences i.e. Math, Physics, Chemistry and Biology to find solutions to such critical issues. When new technologies are harmoniously combined with core sciences, we often witness the birth of remarkable innovations that have the potential to greatly benefit society. In essence, my primary aspiration is to be a dedicated and impactful researcher.

Contd.



A Small Advice for our youth and youngsters:

I'd like to add that progress and discoveries now often come from mixing different areas of knowledge. Each field has reached its peak, and the next big breakthroughs will likely happen when we blend different disciplines, like combining computers with biology. If you're interested in doing various things, there's a lot of room for new ideas and innovations. People tend to stick to just one profession, but it's valuable to broaden your skills in other areas too. I call this approach a 'T-pattern.' It means specializing in one field and Generalising in many. For example, I'm a tech enthusiast, but I also write blogs, and books, make videos, give sessions and do research. For those who spend too much time on Instagram and social media, remember: "If you don't make sacrifices for your goals, your goals may end up being the sacrifice." It's with genuine concern that I've observed the younger generation today, who often blur the line between what's "cool" and what's "cruel." They find themselves engaged in activities they believe will earn them the badge of coolness which they do under the influence of a bad peer group or Western culture, unaware that it leads them down a cruel path. In this complex landscape, I encourage you to seek a simple yet profound solution: nurture deep, meaningful connections with your parents, mentors, and teachers. Trust me when I say that these are the only individuals who genuinely wish to see you thrive and succeed. It is disheartening to witness how, at times, this generation regards them as adversaries or enemies, because they offer guidance and discipline with a heartfelt intention of nurturing your journey toward becoming truly exceptional and extraordinary, even those that you could've never imagined. Trust me you will see the magic and spark in your soul after having deep connections and healthy relations with them when you truly respect them from the bottom of your heart. Your potential for success will be boundless and beyond imagination. As the eminent Dr. APJ Abdul Kalam wisely noted, "Where there is righteousness in the heart, there is beauty in the character. When there is beauty in the character, there is harmony in the home. When there is harmony in the home, there is order in the nation. When there is order in the nation, there is peace in the world." These words resonate with profound emotions, encapsulating the essence of what it means to build strong, harmonious relationships and the immense positive impact it can have on the world.

Written by **Jeba Roselin**