

"It's neither the success nor the failure that describe a person; it's the way one responds to it."

This is the quote that best describes me. Getting my foot into the door of computer science wasn't seamless. Coming from a south indian middle class family, my parents always said that the only legacy they could leave me was my education. Looking at a beautiful smile on my mother's face every time I received the highest grade in my class cemented the desire to study hard and give them the life of their dreams. From an irrepressible, hyperactive, and brave kid having a natural instinct for protecting my people, to captaining both my Cricket and Kabaddi teams, the journey molded me into a better leader every moment of the way and made me understand even better that leadership is not an honor, it's a responsibility; it's about developing a team that doesn't require a leader anymore. I had to learn everything the hard way, which I did with a smile on my face. Every day at 4:30 a.m., I used to walk 6 miles and attend high school math tuition to enhance my performance in my 10th and subsequent grades. Despite all of this, one thing that made me fascinated was the ability to make machines learn, perform tasks and solve problems similar to humans. Self driving cars blew my mind with their ability to learn from their surroundings similar to humans. My dream of exploring the highest potentials of AI and making them work to build products which enhances the way of life and works the same for all became deeply ingrained. Which is why, notwithstanding the advice of many people, including my family, to opt for a more safe and secure career path, I chose the highly competitive computer science as my undergrad major.

Entering the GITAM university, which is one of the most prestigious and oldest universities in India for my undergrad, I right away began learning about AI and computer science. Workshops were sometimes more interesting and fun to learn in than my regular classes. I attended every workshop on topics such as ethical hacking, cyber security, cloud computing, and, most notably, AI and machine learning. I used to go in, sit with a computer, pull out my notes, and immerse myself in the lecture as if it were a movie. After gaining a thorough understanding of machine learning algorithms, I discovered quantum computers, which function using Qubits unlike the classical computers and was eager to learn how machine learning works with them. As a result, I ended up being called crazy by my peers for attending a lecture on semiconductors and quantum transistors in the electronics department, which was not my field, but the only reason to do so was the desire to learn and do what piqued my interest. To witness the practical implementation, I built a quantum neural network using tensorflow Quantum and cirq to classify binary images which resulted in reduced val loss and faster classification. On the other hand, I made sure I didn't bound myself to just academics by conducting workshops on python and problem solving as an active member of the Computer Society of India and the wicketkeeper batsman and captain of the Inter-Branch CSE cricket team. This is the point where my knowledge graph of AI took an exponential turn. I continued to work on machine learning and deep learning, putting every concept learned into practice through the development of numerous projects, and as a result of my performance in academics, I was awarded a merit based scholarship for 4 semesters and stood as the branch topper in my 3rd semester. But,

"Obstacles are placed in your way to see whether what you want is worth fighting for."

Out of nowhere, covid hit the world and everything fell out of place; everything became online and fighting the virus both physically and mentally resulted in a slight decrease in my academic performance. While we're confined to our homes during that dreadful time, the pandemic opened the doors for me with a plethora of opportunities to seclude myself, hone my skills, and make the best use of the lockdown. Working on projects like real time face mask detection using tensorflow and text generation using transformers like T5,GPT-J and so on became my daily routine in addition to attending online classes. On the other hand, as times were tough and layoffs were rapid, I acknowledged a lack of confidence in students and employees' specialized skills. To uplift that skill and confidence. I joined as a tech lead and mentor with an equally committed team at an Ed-Tech startup named Talentsourcein, where I contributed

to develop course curriculums, project codes, and mentored more than 100 students and corporate employees for courses like Python, Data Science, AI, and so on. The experience of working in a startup and gaining advanced level expertise in my field of interest, made me determined to become an AI expert and explore depths of AI. It laid the foundations to my entrepreneurial vision of starting my own tech startup and made me capable of TAing in courses such as machine learning and natural language processing.

I decided to work as an intern to learn how teams work and build projects in the real world, as well as to gain real-world experience with the tools I learned. That's when I worked as a data science intern at Technocolabs pvt ltd for two months, primarily on natural language processing of news headlines and predicting Amazon stock price in python using machine learning algorithms such as linear regression, random forest, and so on, and achieved a great test accuracy of 99.72%. This internship provided me with valuable experience in project development that I applied to my major project where I was assigned to lead a team of three teammates with less domain knowledge. It was a test of my abilities to identify their capabilities and assign work accordingly, while also ensuring that everything was completed on time. My research conducting ability and internship experience were vital in the research and implementation of my major project where based on the literature review, I suggested using LSTM, mainly stacked LSTM to predict the future trend of a stock and achieved an accuracy of 98.44%. We went above and beyond in predicting the close value by including news headlines in the prediction, which helped our model predict with high accuracy even in peculiar cases and situations, such as the Ronaldo-Coca-Cola gesture. The approaches and methodologies were greatly appreciated by our project guide and amc. With their encouragement, I published a paper in the Engineering applications of Artificial Intelligence journal, which is being reviewed, and helps others to start from the existing best and reproduce results. To keep the ball rolling, I'm currently interning as an AI intern at Teachnook, in collaboration with IIT bhubaneswar and Microsoft.

Exploring the extreme potential of AI, its impact on the next internet(web 3.0) era and evolving as an AI expert is exactly what I want to pursue at Stanford, alongside laying the foundation for my tech startup that enhances human AI interaction in everyday life and improves the way of education, and builds technology that works the same way for everyone in the world. To accomplish that, I am very excited and consider it a privilege to work with the professors at Stanford, especially with two of them. One being Sir Christopher Manning, who is a pioneer in applying deep learning to natural language processing and the director of SAIL. Both of us share the goal of creating computers that can intelligently process, understand, and generate human language, and I'm excited to attend his lectures on NLP with deep learning to witness how it improves education. Madam Chelsea Finn being the other, with whom I share an interest in the ability of robots and agents to develop intelligent behaviour through learning techniques such as deep reinforcement, meta-learning, and interaction. Attending her lectures on deep multi-task and meta learning gives me the best opportunity to explore AI's potential and learn how machines can be trained using advanced learning techniques and interaction. Only Stanford can provide me a venue where I can discuss my ideas with professors and take risks alongside equally crazy and passionate peers. Because I know for sure that a group of like-minded and determined people can do wonders

For its top notch education, world class resources, entrepreneurial culture and high level of trust in their students, there's no other place than stanford where I could find myself waking up excited to work with spirited peers and doing what I love, losing track of time while working in the labs, learn a lot from everyone's shared experiences, and passing on my knowledge by being selfless and giving back to the student community, quench my insatiable thirst of knowledge and finally give stanford a successful alumnus, whom they can show and tell to the whole world why they trusted him and admitted him. As I previously stated, neither my failures nor my successes define me, but being playful throughout life by never giving up on my dream and remaining untouched by situations is what defines me and makes me Tanikella Venkata Rama Raviteja.