



1. Tell us a little about yourself?

I am Aditya, a Software Engineer at Facebook in the Ads Core ML team. I graduated from IIT Hyderabad in 2013 with a major in Electrical Engineering and a minor in Computer Science, having done projects on audio and video information retrieval. After that, I pursued my MS from Stanford University in Electrical Engineering, with a focus on Computer Vision and Natural Language Processing. At Facebook, I work on multi-modal content understanding and stochastic neural networks for combinatorial optimization. In my free time, I enjoy hiking, playing tennis, board games, solving crosswords and reading.

2. What made you join IIT, Hyderabad?

At the outset, I'll refer interested readers to a post on my blog in which I spoke about this (<https://tadityasrinivas.wordpress.com/2013/06/26/jee-counselling/>). To put it succinctly, I wanted to pursue a four-year degree in Electrical Engineering which I felt at the time would give me broad exposure to different disciplines within engineering, allowing me to later specialize in one among a range of different fields. I also remember having visited IITH before counselling to learn about research being pursued at the time. And it helped that I was born and bred in Hyderabad all my life!

3. Which subject did you enjoy most and Least & Why?

I'd pick four – Math behind Machine Learning, Speech Signal Processing, Image & Video Processing, Information Theory. These classes equipped me with strong fundamentals and intuition that I find useful to this day in my work. An unconventional addition I'll make to this list is "Intro to World Literature", which I chose as one of my Liberal Arts electives. It was just one of many such avenues that IITH gave me to explore my full breadth of interests.

4. Which other activities were you involved in?

I was quite active in the student community in various spheres viz., cultural, technical and literary domains. On the literary side, I was one of the Coordinators in Elan in 2011-12 and was also the elected Literary Secretary in Student Gymkhana 2011-12. I edited the student magazine Reverb, besides organizing a host of Quizzes and Spell Bees. To fuel my technical passions, I cofounded the Electronics Club with Aniket, besides having been active in Cepheid (the astronomy club) and the Sci-tech Council. What started as a random jamming session one night in the Music Room ended up creating a full-fledged band. Our band performed and won awards at Grand Musical Nites and other such events at IITH.

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5. What specialized training have you had?

Having been at Stanford during the shift towards deep learning, I consider myself fortunate to have had experience in both classical ML algorithms as well as deep learning. I also worked on robotics for a summer at Qualcomm Research, giving me exposure to another interesting avenue that learning is being increasingly applied to. Now, I work primarily on (1) multi-modal understanding of content on web-scale platforms such as those at Facebook, (2) applying recent advances in stochastic neural networks to approximately solve intractable combinatorial optimization problems.

6. How have your education and training prepared you for your current job role?

The classes I mentioned earlier as my favorite courses laid foundational knowledge viz., teaching me the underpinnings of graphical models (HMMs, GMMs), SVD, PCA and other domain specific knowledge like audio and image/video related features. Besides these, there were three classes in particular at Stanford that I owe other facets of my current ML knowledge to – Convex Optimization, CNNs for Visual Recognition, Deep Learning for NLP. All of the above courses at IITH and Stanford imbibed me with the fundamentals I find useful in my day-to-day work even today. They help me approach problems from a first-principles perspective.

7. The best moment you can recall from yours' life @ IIT Hyderabad?

It's incredibly hard to pick one, but a few that are right up there – 1) Election results counting night when I contested for Literary Secretary 2011-12, which was equal parts fun and exciting, 2) Performing the timeless graduation song "Papa Kehtey Hai" and the Linkin Park hit "Bleed It Out" at the farewell ceremony we organized for our seniors' batch, 3) Receiving the Gold medal for excellence in academics and extracurricular activities from NR Narayana Murthy, 4) Pulling (almost) an all-nighter to prepare live demos for a couple of projects – a Shazam like music retrieval app, and a phone recording based video search app. It felt amazing when the live demos worked flawlessly the following morning.

8. What message do you want to convey to the existing student folk @ IIT, Hyderabad?

This may sound like a trope but is as good a message as I can give an IIT student – work hard and play hard, you will look back at these years as some of the best in your life. Minimize spending time cocooned watching shows/movies on your laptop (not to say don't do this at all), but go out there and explore your interests deeper, be it music, sports, arts or whatever else excites you! Pursue technical projects that channel your passions into creating something unique.

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9. What as per you is best about IITH and please suggest an improvement area for betterment?

I love that we are a young and nimble institute, which has enabled us to move fast when it comes to fractional credit courses, introducing new programs at the BTech level to name a few. I am indebted to the bright faculty that have inculcated in me, both technical knowledge as well as a sense of discipline. At IITH, there are a variety of avenues available to students to chart out their unique trajectories based on skills and interests. As for an area of betterment, perhaps finding a way to get temporary exchange students from other countries, if logistically possible, to add to the diversity of exposures to our students.

10. What is the best way to contact you?

The best way to reach me is at my email address - tadityasrinivas@gmail.com

11. Any other message you want to communicate!

I'd be remiss if I didn't mention https://mitadmissions.org/blogs/entry/50_things/, current students should check this out.



Aniket Anand Deshmukh

B.Tech 2013, EE

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1. Tell us a little about yourself?

I am working as a Data and Applied Scientist at Microsoft AI and Research in Sunnyvale, California. My broader research interests span a variety of areas in statistical and reinforcement learning applied to various applications in text and image. I have published papers in contextual bandits, deep learning and transfer learning at venues like NeurIPS, JMLR and ECCV. I completed my MS-PhD focused on machine learning in 2019 from the University of Michigan, Ann Arbor, and bachelor's degree in electrical engineering from IIT Hyderabad. You can find more details about my machine learning research work at <https://aniketde.github.io/>. Apart from machine learning I love to spend time outdoors and like hiking and camping!

2. What made you join IIT, Hyderabad?

I am from the second (2009-2013) B Tech batch of IIT Hyderabad. The main reason to join IIT Hyderabad was the city of Hyderabad's information technology ecosystem.

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