bitStream
CSE Department Newsletter | 2020 Edition

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JOURNEY TO IITB

I met my partner when we were both students at Syracuse University, pursuing our masters. After our marriage, we moved to the Bay Area and took up a job while I stayed on for another three years and finished up my PhD. When I went back to the Bay Area, it turned out to be a fascinating place where things were happening. I got totally caught up in that excitement and joined a small startup in Berkeley, CA, which was looking to build a commercial version of ideas I was working on. The initial response was encouraging and I visited the bay area to meet with some of them. However just as we were gaining some traction, the pandemic happened and the efforts were put on hold. And now, we are in a bizarre semester.

That’s the only word, and the situation is that we will be having another online semester. Nowadays, the majority of my energy goes into trying to ensure no students get left behind. We have spent a lot of energy on figuring how to effectively run an academic institute online and are hoping to be back on track with a more “normal” semester by Autumn of 2021.

ON INFRASTRUCTURE

Having added a fair bit of space with the new CSE building, we have had our fair share of problems with it. After a long period of construction, we seem to have ended up with a maze of walkways and overhangs which require state-of-the-art pathfinding algorithms to navigate. There have been some significant fixes. For example, we have had to move some furniture around. Much like production-level code, it is an ongoing saga of fixes, patches and features. The department still hasn’t lost hope though, and we think we can turn this around eventually with help from the institute and donations.

There still are some silver linings. The building has given the department much-needed space. Some of which is being planned to be used for lounges. Yes, the next time most of us step into the institute, we’d see some progress towards the faculty lounge, the student lounge and a large conference room. Space has been earmarked for the faculty lounge on the 4th floor and student lounge on the 4th. We are well into the process of acquiring furniture.

We have always wanted some areas where people could get together and just chat. All the open space of both the buildings should just be one huge lounge. With nooks and crannies for students to hangout, boards lying around to be scribbled on. We want an atmosphere of academic discourse happening throughout the building.

HIGH DEMAND FOR MINOR

My perspective is that everybody who wants to do a minor should be given a chance. It is good to provide a chance for anyone who wants the opportunity. We have raised enrollment limits from around 30-40 to around 80-100 to enable more students to sign up for it. Raising the limits is indeed possible as long as good TA support is available.

There is a massive demand for CS. Other avenues are opening up as well. You must have heard of the Centre for Machine Intelligence that the institute has just started. There are also plans for an IDDD program for DS and ML starting next year, where any BTech student from any department can get a masters in ML and Data Science. We are planning to launch another IDPP programme for MS by research soon. We used to have MS by research as an exit degree earlier for people who started a PhD but did not complete it. This is now redefined to be a high-end research programme at masters level relative to MTech, which has a much more significant coursework component to it. This will be open to students of other departments by IDDP programme.

EXPERIENCE AS HOD

After being appointed the head of the department, life has become a lot more hectic. Although I continue to teach and guide students, administrative responsibilities have taken up a lot more of my time than it used to. One of the top priorities for me was and continues to be fundraising so that I could leave the department comfort-

HOD SPEAKS

Prof. Umesh Bellur

Prof Umesh Bellur signed up as the HOD of CSE department in May 2019. As part of the newsletter, we got a chance to interact with him. We asked him questions regarding various aspects of our department ranging from infrastructure, covid-19 effects to ideal courses. We also talked about what could be the future focus of the department in terms of courses and research aspects.

-ation that it has to protect. And once you get to the top, you have to maintain it.

We need to take some concrete steps. For every incoming batch, we are already doing some sensitisation, which has to be reinforced continuously. I have talked to the FacAds to make sure they keep an open dialogue, particularly about this item as well. ICPC, in particular, is all run by students. We are coaches, but only on paper. Other than that, the faculty are not involved. I would like to change this a little bit. If as a department, we want to be serious about ICPC, we should invest faculty resources from our side.

Seniors have a lot of influence on incoming batches. Batches develop a rapport and listen to a lot of their seniors have to say. We should use that. Not just in terms of achievement but also the kind of culture we have in the department. We need to work together to make this a better place. I don’t want it to be on paper. Not just this, but everything else, including BTMs, RnDs, Seminars and MTPs. We want people to be involved or say no. We need to develop a competitive culture, but not at this cost.

ON THE PHD STRENGTH

I feel that we, as a society, do not value a career in research and academics as much as one in the industry. One of my students around 5-6 years ago got selected for a PhD at Georgia Tech, but his parents were totally against it. It was unbelievable for me as it was an opportunity of a lifetime. I then visited Ahmedabad to talk to his parents. For example, having a 30lpa job seems like an excellent culmination of the efforts that you put in as far as parents are concerned. To not earn anything and live as a student for another five years isn’t easy for many parents to come to terms with.

Certain long term factors also come into play as well. Most would think you’ll end up becoming an academic after doing a PhD thereby earning less than with a corporate job. “By heading abroad for a PhD my only child may not return and help me live the older years of my life.” This type of thinking is quite prevalent amongst Indian families.

As faculty, we are judged and promoted largely on our research outcome. Every faculty is involved in publishing, maybe not at the same rate. It is not the same as a second or third-tier college in India, where only a few of the faculty would be doing research.

HIGHER STUDIES vs. INDUSTRY

As a faculty member, I would like to see each one of my students go on for higher studies. I’ve always tried to convince my students of the same. The world is also changing at a rapid pace. Software testing twenty years ago was the job of a professional, while today it’s being automated. This is real, and this is going to be with us for a long time.

I feel that a Master’s degree would be advantageous to explore what a career in research may be like and see whether one would want to continue on for a PhD. I believe that with the superior educational base that our students have, you should be thinking of research as a career. Our students get much more exposure to research than many other institutes in India which you can take advantage of. If we were to train the next set of researchers, you would be it. I would want to see most of the batch go on to finish a PhD.

-tably placed with an endowment. So I started reaching out to alumni, particularly in the bay area, where I have had some connections. The initial response was encouraging and I visited the bay area to meet with some of them. However just as we were gaining some traction, the pandemic happened and the efforts were put on hold. And now, we are in a bizarre semester.

PLAGIARISM

ICPC was a regrettable incident. None of us could’ve foreseen anything like this happening. ICPC has a reputa-
H:\ Nisheeth, A quick word about you and what all projects you are currently working on?

I'm co-founder at Rephrase, where we generate videos of people speaking, given just the text as input.

How was your experience at IIT Bombay? What are your most cherished moments from college?

Absolutely amazing, though a little wasteful. I didn't make a great use of the opportunities I had, but I don't think I've had this much fun before or after.

I'd most cherish randomly going to any friend's room and spending a lot of time on anything and everything: from card games to LAN games to philosophical discussions to really bad puns. That seemed like the least eventful part of life back then, but I just miss having that much free time to spend, and enough equally-free friends to spend it with.

What were your thoughts when you appeared for the placements in the final year and how did you shortlist the companies for which you would interview?

Also, how does it feel to be on the other side of the table now?

I'd always wanted to do either a startup, or failing that, theoretical research; but didn't plan my way through things properly and ended up sitting for placements after all.

I've always enjoyed mathematical work a lot, so a quant job seemed like the most interesting line out of the placement options, but I felt at the time (based on some advice I agreed with) that if you look back after a few years, you should be able to point to something with "I built that," and quant or finance roles wouldn't have any element of it. So I decided to go for programming jobs as a first priority (with Google being the obvious first priority). I'm not sure how much I agree with that line of thinking now, by the way. While I still think trading is mostly zero-sum work, I'd pay a much higher premium on interestingness now, compared to impact - which is something you can have more of at a slightly later stage in life anyway.

Then again, in my current work, I get to build something while solving some fairly interesting mathematical problems, so at least that worked out for me.

What motivated you towards forming a startup? What made you choose that path over a dream job at Google, London?

My job at Google London, as I realized once I joined, wasn't much of a dream job for me. While they have a great culture, and great perks, and some pretty good work in some enclaves, the work I'd been assigned didn't much match my interests at all.

Hi Someshwar, a short introduction about yourself!

I'm currently the Vice President with the Franklin Templeton Fixed Income Group where I manage a team of Quantitative Analysts and Data Scientists. Prior to joining the firm in 2014, I was a research associate at Morgan Stanley and was a part of the Agency MBS Strategy team. I have also worked with Nordea as a Technology analyst with the CMBS Trading Desk. I'm also a charter holder with Chartered Financial Analyst (CFA) and with Chartered Alternative Investment Analyst (CAIA).

How was your experience at IIT Bombay? What are the most cherished days from your college?

College was great. I did make a lot of lifetime friends, studied (a bit), was part of the core team of Techfest and met my wife at college:) Trying to balance academics with some of the other stuff I was pursuing was tough - but remains a cherished period of time in my life.

When and why did you decide to venture into the finance sector? Is it ok for the fourth year undergraduates to aim for financial firms during their placements?

I used to follow the markets as my dad used to invest in stocks (before college) and that was my only exposure to this sector. I really didn't choose finance, but more like my first job was in a fin company and I liked it. Shifting a couple of roles to get to that role which I liked and I am happy my experimentation paid off. You can get into any company as long as you like the role and it excites you. It may not be the first job right after college, but as long as you keep trying and expanding your USPs, eventually, it will pay off. Don't be afraid to experiment.:)

How did the background in CSE help you, especially from IITB, if it did at all?

I hated coding during college, was always hoping that I get a non-core job where I will never need to open an editor! But 10 years down the line, I can't spend a day without coding. I think it takes time for everyone to appreciate what they have learnt at college, for some it's useful immediately and for some, the ROTI (return on time invested) comes later, but it will eventually come.

What were some of the toughest challenges you had faced throughout the journey?

Understanding what excites you and reaching that will take time and sometimes may be tough. Typically in core finance role, especially in asset management, needs a lot of effort in terms of hours put in for designations and understanding the subject matter. Juggling job and family with this extra load has been demanding.

Given the current shift towards a digital economy, what are the niches worth to look into? Which companies have a chance of being rewarded handsomely for it and why?

Given the current shift towards a digital economy, what are the niches worth to look into? Which companies have a chance of being rewarded handsomely for it and why?

What are your plans for the future in regards to the startup-? Especially when we expect a surge in startup activity in the post-COVID era?

Making sure that our burn rate is low enough to last a long time while creating something good enough by then that we can earn off it. It helps that we have enough funds and a good enough team to be able to do that right now.

Given the current shift towards a digital economy, what are the niches, according to you, which have the potential to grow in coming times?

We're banking on more and more things moving from text to video, something that seems to be a trend already. Personalized emails that you get. Reach out for marketing, chatbots. Educational material.

A piece of advice that you would like to give to your younger self who has a lot of ideas and wants to venture into a startup?

Instead of me, take advice from people like Paul Graham, Naval Ravikant, Patrick Collision, Patrick McKenzie etc. Seriously, there are so many people, with much more demonstrable success in entrepreneurship, who write insightful things for free on the internet. That said, work a lot on side projects (which might or might not involve working on a lot of side projects). Doing a job before starting a company has never given me any significant advantages: You get to learn a lot from more experienced people and companies. You end up with some money in your bank account, which shields you from getting side-tracked doing tiny fund-raises, or panicking too much when funds are running low. Startups take longer to succeed than most people initially imagine. Get into one assuming it’s going to take several years of your life. Never compromise on your health. Whatever you’re compromising them for probably isn’t that urgent, and can wait a bit. It’s easy to get lost in the weeds of whatever you’re doing and end up doing very sub-optimal things as a result. Always take some time to zoom out and think of the big picture (though most of your work should still be zoomed-in and in-the-weeds). Joining an accelerator (like Y-Combinator or Techstars) is probably a good idea at this stage. If nothing else, it lets you have a lot of other founders in your circle.

What/who helped inspire you from forming an idea to building a successful business?

I got started on the whole startup thing a while after leaving ITB, and my other co-founders aren’t from CSE, ITB either, so directly, not that big a role. But indirectly, it was absolutely critical:

• My other co-founders in SoundRex (the company I co-founded after my Google job were all from ITB. I wouldn’t have co-founded SoundRex had I not known many people like that, and I wouldn’t have known people like that if not for ITB.

• The current product we’re working on is very much a computer-science idea, something I’ve developed an interest in mostly due to my CSE education.

How big of a role did CSE, ITB play in your journey so far?

I developed an interest in mostly due to my CSE education. The current product we’re working on is very much a computer-science idea, something I’ve developed an interest in mostly due to my CSE education.

If you consistently do great work, there’s a high chance of being rewarded handsomely for it

When did it all begin? What/who helped inspire the idea behind the start-up?

I keep a whole list of far-fetched things I’d like to someday create. One item on that list, since about my second year, was a tool to take any script of a movie as input, and generate an entire movie out of it (other items are things like “A program that can do high-level maths better than the best mathematician” and “theory of everything in physics”. The list isn’t quite a to-do list, and isn’t quite an if-I-were-God list, but it’s closer to the latter than to the former). One day, in SoundRex, over lunch, we’d been discussing things we’d really like to make, given enough time/money/resources, and this came up. Some time later, Ashray (co-founder and CEO at SoundRex and then Rephrase) came across some videos showing crude facial re-enactment, and realized that it was a great time to work on this problem. I felt like this would at least be a starting step in the direction of arbitrarily manipulating videos, and if things went well, we could gradually move towards generating entire movies this way.

Advice that you would like to give to your younger self who has a lot of ideas and wants to venture into the finance field?

Meet as many people as possible, make more connections, expand your professional network. Be ready to pivot and don’t be afraid to do that. Read a lot of books.
Here's a descriptive list of the areas in which research activities are undertaken in our department, along with some of the popular electives in the same.

<table>
<thead>
<tr>
<th>AREA</th>
<th>Description</th>
<th>Electives</th>
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<tbody>
<tr>
<td><strong>AI &amp; ML</strong></td>
<td>AI/ML encompasses many application-based fields based on a variety of techniques to handle data and make intelligent predictions, and is a very active field of research. Some major applications are speech recognition, machine translation, medical diagnosis, algorithmic trading, and self-driving cars.</td>
<td>CS 626, CS 747, CS 768, CS 621, CS 753</td>
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<tr>
<td><strong>REAL-TIME &amp; EMBEDDED SYSTEMS</strong></td>
<td>A combination of software and hardware, these are application-oriented systems with timing constraints. Applications include GPS, Missile Guidance Systems, ABS, Rovers, Robots, and many more.</td>
<td>CS 684</td>
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<tr>
<td><strong>THEORETICAL CS</strong></td>
<td>Theoretical insight in CS is often highly relevant and sometimes even necessary for practice. The practitioners of this field are concerned with understanding, formally defining, and analyzing concepts in topics like algorithms, combinatorics, optimization, cryptography, and complexity theory.</td>
<td>CS 601, CS 604, CS 760</td>
</tr>
<tr>
<td><strong>THEORETICAL DATABASE &amp; INFORMATION SYSTEMS</strong></td>
<td>This involves optimization in collecting, organizing, querying, and distributing data, whose importance grows at an unprecedented rate. Many software systems rely on research in this area to manage and extract information from data.</td>
<td>CS 631, CS 635</td>
</tr>
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<td><strong>DISTRIBUTED SYSTEMS &amp; CLOUD COMPUTING</strong></td>
<td>This field studies the design and behavior of systems that involve many loosely-coupled components along with their reliability, security, and portability. Theoretical aspects involve analysis of game-theoretic algorithms while applied work is in system design and parallel programming.</td>
<td>CS 695, CS 744</td>
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<tr>
<td><strong>SECURITY &amp; CRYPTOGRAPHY</strong></td>
<td>Security and privacy concerns hinder progress in applications like internet voting, e-commerce, and universal medical records. This group involves both theory and practice, from proofs of security through algorithm and protocol design to safe and secure applications.</td>
<td>CS 741, CS 765</td>
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<td><strong>SOFTWARE ENGINEERING</strong></td>
<td>Software Engineering is the backbone of applications and systems all around us. Research in this field is a relatively new idea that focuses on accuracy, reproducibility, and reusability of software to solve many real-world problems.</td>
<td>CS 770</td>
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<td><strong>FORMAL METHODS</strong></td>
<td>Associated with development and improvement in techniques used to model complex systems mathematically to verify properties of systems, from banking and trading sectors to mission-critical satellite launchers.</td>
<td>CS 433, CS 713, CS 766, CS 738</td>
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<tr>
<td><strong>COMPUTER NETWORKS</strong></td>
<td>Computer networks allow computers to communicate with one another and form the backbone of the Internet. This is a high-impact area that reflects a variety of subtopics like distributed networking, network security, and internet of things.</td>
<td>CS 681, CS 741, CS 756</td>
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<td><strong>VISUAL COMPUTING</strong></td>
<td>This is an exciting group which studies how computers perceive, process, and understand visual data like images, videos, and 3D models. Major subfields are image processing, computer vision, and graphics; and applications are found in robotics, medicine, quality control, AR/VR, VFX, and computer games.</td>
<td>CS 475, CS 663, CS 736, CS 763</td>
</tr>
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<td><strong>DISTRIBUTED SYSTEMS</strong></td>
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<td>CS 631, CS 635</td>
</tr>
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How did you get to know about semex? I was always interested in studying abroad, but I didn’t know exactly how to apply. That’s when I came across the University of British Columbia (UBC), which offered courses in various fields. I was really excited about the opportunity to study in Canada and experience a different culture.

What motivated you to apply for semex? I had always been fascinated by the idea of living and learning in a different country. I had heard that UBC was a great place to study, with a huge campus and a lot of opportunities for cultural exchange. I also wanted to experience a different way of life, and I knew that studying abroad would give me the chance to do just that.

How did you decide on the university for semex? I wanted to study in a place with a lot of cultural diversity, so I searched online for universities with a strong international student community. I found UBC to be a great fit, and I was especially drawn to the city of Vancouver, which I heard was very welcoming to international students.

How did you apply for it? I did my research on the UBC website and found out about the application process. I submitted my application online and included my transcripts, a statement of purpose, and two recommendation letters.

How did you choose the university for semex? I wanted a university that was well-ranked and had a strong program in my field of study. I also wanted a university that would be able to accommodate my_partitioner schedule, so I chose UBC because it offered a lot of flexibility in terms of course selection.

How did you get to know about semex? I heard about it from a friend who had previously participated in a study abroad program.

How did you apply for it? I filled out an application form and submitted it along with my transcripts and recommendation letters.

How did you choose the university for semex? I wanted to go to a university with a strong engineering program, so I researched several options and chose UBC because of its reputation for excellence in that field.

How did you decide on the university for semex? I wanted to go to a university that was known for its strong engineering program.

How did you apply for it? I submitted my application along with my transcripts and recommendation letters.

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good. There are six courts and many I continued playing tennis here. The
I was involved in crosswords, participated in sports, I got
Any competitions, prizes etc…
how to do assignments. It was sometimes group work, so I
card games and hanging out with friends.
I continued playing tennis here. The experience with the tennis courts was
tennis courts. There are six courts and many competitive people to play. Incidentally,
revision, but you don’t have to worry about what will happen
How did you manage your time for both extra-currics and academics?
Today, I was not much into these. Some extra-
productivity. I generally spent around 2-3 hours doing
Not much worry. I feel people help you in getting started with things quicker. I
They gave you some guidance and also have a pool of
They help you in staying interested and playing. In the
So, I didn’t try much. Maintaining my CPI
I was generally tired. I spent an hour or two for athletics and dance and a little
The atmosphere is very cool here. Everyone is friendly, and it serves as
See you at Insta Jamming. Then I did AIDS, Sports, and different runathons, relays, biathlons etc. I got the first position
I spent a lot of time dancing and running. I also took part in IIT’s athletics

What are you interested in?
I feel people waste most of the time working about deadlines and what to do. So, I just ignored those parts and kept playing. And when I got back, I managed to pull off assignments. It was sometimes group work, so I got my job done before and let the others do their part while I was playing. However, once I forgot to submit an assignment. As long as you’re not aiming for the DR and you’re not too worried about what will happen with studies, grades usually sort themselves out. There was occasional studying, though.
How did you face any problems related to it for acads (or any other issues)? Has it helped you in any way?
I relied on my group members to keep track of progress (as in when to meet for discussions) in projects because I didn’t want to put my head in scheduling these things. I tried to aim for DR initially, but then people had gotten much higher grades in the first and second semesters, and it would have been a lot more effort to catch up to them. DR requires effort - that’s not possible with a few hasty study sessions. So, I didn’t try much. Maintaining my CPI was the goal. Although, it helped with learning time management, prioritisation and compartmentalisation.
I didn’t get anywhere competitively in inter-college level. Intra-college though won quite a few GCs. Participated in a couple of cult/tech GCs. I appreciated the hostel culture very much, and I’m quite active on the hostel forums. I also tried to get my batch to participate in Crossey GCs, but they bailed out at least half of the time. It’s a 30-40 minute thing, but most don’t want to get out of their rooms.

As long as you’re not aiming for the DR and you’re not too worried about what will happen usually

If you’re not too worried about what will happen, grades usually sort themselves out.

Thekey is to not get frustrated sometimes.

It’s a 30-40 minute thing, but most don’t want to get out of their rooms.

Any message/comments for the readers.
I guess it’s a matter of different priorities. For most, exercise is shallow on the ladder. Our father encouraged us to play sports even before we entered college. So, if there was an exam the next day, I think the habit started from there. When you’re playing, think only about playing. That will keep in you a better mood than fretting while playing. Have friends to talk, and people with different opinions and in different circles, so you don’t get frustrated sometimes.

I was in the hostel NSO. I realised in the second year. Also took part in a couple of athletics GC, Crossy GCs and different runathons, relays, biathlons etc. I got the first position in this year’s Gyrations. Rest all dance events are mostly not competitions.

Have fun and enjoy your life at IITB. You are going to miss this later.

I spent hours just texting, scrolling social media feed, playing clash royale or watching something on YouTube. I spend an hour or two for athletics and dance and a little less time for such stuff compared to other guys. And when it comes to acads, it’s cool because I guess I attend most of the classes (at least I try to) and we have loads of homework, and we don’t do assignments. 1.5 hours a day doesn’t matter much, and athletics puts me into the discipline, and the schedule revolves around it.

Did you face any problems related to it for acads (or any other issues)? Has it helped you in any way? Sometimes I faced problems. I don’t like missing practices until and unless it’s necessary. So maybe I had to complete my assignment a bit faster and had to hurry at the end moment. But that’s cool I guess, started prioritising acads much more in the sixth semester. I would say it has helped me a lot, mainly in keeping the stuff in the schedule. Labs or classes get over by 5:30-6.

How did you manage your time for both extra-currics and academics?

Athletics practices are pretty regular, every day around 1-1.5 hours in the evening. Dance is not throughout the year, it’s just for the extracurricular AIDs or Gyrations, so I guess, it mainly takes 1-2 weeks before the thing. I skipped practices only if there were any exams or assignment deadlines that I couldn’t complete before.

How did you explore new things in IIT? How was your experience during learning? Cultural activities.

Hobby, competition, inter-college, prizes etc. Great awesome! Could not ask for more. It helped me explore so much. I love dancing and running. And I am getting a lot of that in insta. I didn’t participate in competitions much, and I like practices more I would say. Inter IIT experience at RGP was excellent. Didn’t get any prizes there but still, that experience was worth my winters. I have won many awards at the insti level - Athletics GC, Crossey GCs and different runathons, basketball etc. I got the first position in this year’s Gyrations. Rest all dance events are mostly not competitions.

How was your experience in IITB (till now)? Hobby, competition, inter-college, prizes etc.

I’m enthusiastic about dance and athletics. In dance, I
At the same time, I was not much into these. Some extra-curricular activities.

People spend hours just texting, scrolling social media feed, playing clash royale or watching something on YouTube. I spend an hour or two for athletics and dance.

I spent hours just texting, scrolling social media feed, playing clash royale or watching something on YouTube. I spend an hour or two for athletics and dance.

As I was in the Technical Head. I learnt Photoshop and Illustrator in my first year here from seniors in a Mood Indigo session. Now I’m pretty decent at that stuff. It’s quite a happening place, so it’s up to you how busy you want to be. To be honest, in CSE, generally, people aren’t too active outside, and I didn’t want to be like that. The group you stay out with makes a difference. Unless you have a group that involves itself in outside activities, it is going to be difficult to commit yourself alone.

How much time do you get to pursue it (tennis and other activities)?
I played every day. Last semester, all I had were extra
courses, and that too only 18 credits. So, I was out from

How did you manage your time for both extra-currics and academics?
I feel people waste most of the time working about deadlines and what to do. So, I just ignored those parts and kept playing. And when I got back, I managed to pull off assignments. It was sometimes group work, so I got my job done before and let the others do their part while I was playing. However, once I forgot to submit an assignment. As long as you’re not aiming for the DR and you’re not too worried about what will happen with
What are you interested in?
In extracurriculars, I have been highly interested in swimming and football.

Your adventures before coming to IIT… Any competitions, prizes etc.
In the school days, I would participate actively in swimming and football competitions. However, I didn’t pursue them from 10th through 12th due to JEE preparations. After JEE, during the two month holidays, I resumed swimming with full intensity. I have been staying in Powai throughout my school time and my swimming coach, Dr P M Reddy, had been the coach at IIT as well. So, he suggested that I should start training for Inter IIT right away. That was how I started putting in the work. The practices used to be from 5-7:30 in the morning. Apart from that, I used to do workouts at home by myself in the evening for an hour. I improved a lot during that period.

How did you continue it here?
Once the semester started, I would continue with the practices daily. These practices in the evenings continued until Inter IIT aquatics which was about a week after the midterms. Our coach gave us a break for the midterms. So, in the first half of my first semester, my entire time apart from academics would be spent in swimming.

How much time do you get to pursue swimming?
I continued the practice for Inter IIT from 5:30-8 in the evening. After Inter IIT, I kept going for the practices but with a lower frequency.

Did you face any problems related to it for acads (or any other issues)? Has it helped you in any way?
I remember well that the intense workouts would have left me so tired that I would often doze off in the lectures (actually I enjoyed that xD). The best thing was that I would have so little energy left that I would decide to spend that bit in academics rather than in enjoying the recently gained freedom one gets in college, and hence it prevented me from being unproductive. Also, it turned out that first semester studies could be done well with not so much effort. So, in that way, swimming helped me in academics. Apart from academics, I met quite a few seniors through aquatics, and that again proved to be a boon for getting guidance in general.

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How was your experience in IITB (till now)? Hobby, competition, inter-college, prizes etc.
The Inter IIT aquatics meet had been a great experience. It gave an exposure to the effort people from all IITs had put in. I was particularly interested in CS courses credits can be finished as soon as within six semesters. I finished mine in 7 semesters, thus giving me a semester off to give me some time for my own.

How did you get to know about fast-track? Did any of your friends do it earlier?
The best thing was that I already owned the sophie booklet when I became a sophomore. Though I did not have any specific plans to fast-track immediately then, I was aware of the provision to do so. I wasn’t aware of anyone doing this from my senior batch. Eventually, after I decided to fast-track, I got to know that a few seniors from the department had done this earlier. Since the rules and procedure were a bit unclear, I talked to Rishabh Aggarwal, who is from the 2014 joining batch. He did fast-track like me in the 7 semesters then.

What made you think that you should do a fast-track?
I have already been doing several CS electives every semester, similar to some of my peers. Since I was particularly interested in CS courses only, I took a few advanced courses of my interest like AML, Computer Vision in my sixth semester itself. Sometime, around the end of the sixth semester, I felt that I am interested in the field of AI, and felt there were not many specific courses I was willing to take later in the eighth semester. It wasn’t an immediate decision, but I felt it was better that I decided on it earlier rather than later that I could personally learn something on my own. I could spend some more time with my family before leaving the country soon. Also, I had a not-so-particular interest in any of the other advanced courses, plus because that I am interested in the constant academic lifecycle filled with deadlines and exams in the institute made me take the decision. Leaving the institute and my friends were the most challenging decisions to make against doing the fast-track.

What procedure did you follow for it?
Glad you asked. Though there is nothing fancy, it was not-explictly anything. First, the approval of the FacAd is necessary for your decision to fast-track. It is a good idea just to talk to your FacAd first once you’ve decided to fast-track. After your exams are done, and grades are given out, the formal procedure starts, since you need to complete the requirements of the degree. The student application form needs to be filled to apply for fast-tracking. It should be signed by FacAd and then submitted to the department office. Also, any final course re-tagging that must be done should be mentioned here in the application details section of the form. Finally, the department office will ensure that it is sent to the academic office for further action. Note that the form must go to academic office only through the department office. It may take a few weeks to be approved, and you might want to follow up with the academic office. Once approved you will be asked to sign a no-objection/no-dues form from almost everywhere like the library, gymkhana, hostel, etc. to ensure you are free of any fees. The department office and convocation form also need to be filled at the same time. Once that’s done, depending on the pace of things, you will be given a provisional degree. This provisional degree is due to the actual degree, and it is a simple letter with IITB letter-head stating that the requirements of the degree have been completed and the degree will be given on the Convocation date. It is my advice, though this is only my opinion. I advise students to make sure they don’t burden themselves with excessive course-work since it is the learning that matters.

Is there a way to get back?
I have no idea about this, but I guess the answer is no. Once, your application is approved and the provisional degree is given, I think it is irreversible.

Any message/comments for the readers…
I’d suggest students analyse their plans, goals and opportunities and all the trade-offs before deciding to fast-track. It is not like it is the best path to choose always. However, there are potential opportunities to utilise the time after fast-tracking by exploring your hobbies like travel or taking up a serious long-term internship (unlike the summer internships where time is a barrier), or anything you might have thought of doing but could never find some time to do so. Overall, I would say the IITB is only one of the few institutes in India to give this opportunity, so do utilise it if it fits your plans.
Hey there,

Hope this note finds you happy and sound in these extraordinary times. With this online newsletter, we are hoping to revive bitStream, our department newsletter. In the short piece, we have tried to include subjects which will hopefully give readers more insights into the functioning of our CSE department, while at the same time bringing some issues to the fore.

With this 2020 edition, we have included an extensive interview with our HOD, student experiences of extra-curricular and semester exchange, and a piece on unconventional career choices from the alumni of the branch, which is highly known for core placements. We have also tried to present a comprehensive and lucid representation of the sub-areas in the Computer Science department and the faculties associated with them. Hope you have a good read.

Thanks to the team for putting up efforts despite the online aspect. The department wishes to regularly release such newsletters in the future covering issues that matter. If you have some topic that you would like to be covered, feel free to contact us. And if you have a passion for writing and journalism, keep in touch with the team for future opportunities.

Bitstream team 2020-21