Leadership Lessons by BITSian Women

BITS
ECHO

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Echo

Dear BITSians,

The world is moving ahead with cautious optimism – with every new variant and wave, our spirit is dampened, but not defeated. The BITS campuses, after having fully reopened and offering classes in-person, will again be online in the next semester. However, the students will have an option of attending these online classes while being on-campus, with all COVID protocols in place.

The presence of students shall ensure that they do not miss out on the campus life, something they all cherish throughout their life. This was evident from the many alumni visits across all campuses, during the short window we had opened up our gates.

While we miss the large gatherings and celebrations of the yore (yes, it seems like a thing of the past!), we truly hope that the situation will relent and we will have many reunions, especially when we are a year away from your alma mater's 60-year of founding celebrations.

Until then, enjoy this festive season edition of the Echo, and be connected with us, virtually!

We are so proud of all your accomplishments this year, all the accolades you all received. I just can't wait to see what you do in the next year.

Cheers to a new year, new beginnings. Wish you and your family a happy, healthy, and abundant 2022 ahead.

Souvik Bhattacharyya
Vice Chancellor

Dear BITSians,

We at Alumni Relations are proud of your achievements and accomplishments. Alumni have been excelling across domains. You will be happy to know that during last one year BITSians founders/ co-founders have raised more than $ 7.5 billion funding, more than 25 alumni became the CEO's and many achieved echelons positions in academia, research organisations and other domains that they love.

Alumni across the globe contributed a great deal to respond to the challenges posed by COVID 19 in multiple ways by supporting their fellow BITSians as well as communities around. One has to admire the BITSian spirit that has great flexibility to adapt, persevere, and the will to succeed, despite circumstances being beyond their control. Something that is common amongst BITSians is their determination to achieve remarkable heights, bonding amongst alumni and emotional connect with their Alma Mater.

We could see the over whelming response of Alumni to contribute back to different causes that is giving a big push to entrepreneurship, innovation, research and student welfare programmes on different campuses. We shall keep looking forward to your suggestions to improve alumni connect to lift this institution to greater heights.

Let us work together to strengthen our Alumni Community.

Christmas Greetings and Happy New Year 2022 !

Arya Kumar
Dean Alumni Relations

LEADERSHIP LESSONS BY BITSIAN WOMEN

Reflections on How to Lead, Learn, & Love your Work

Revolutionary changes are brought about in society when women take on the reigns in any organization. Setting an example are three BITSian women, who have broken all kinds of stereotypes and have risen high. Despite the challenges that they faced, they have shown that with grit and determination, if one wants, one can achieve anything.
This issue of BITS Echo brings you the journey of three such leaders.

'Reinventing myself was the key!'

Let go of your comfort zone & take challenges!

Preethy Padmanabhan (Pilani, '99) is the Senior Director of Platform Product Marketing at Freshworks. Before joining Freshworks, Preethy served as the Vice President of Marketing at Panzura. Preethy connects and brings the teams together, creating extraordinary value for the firms. She has an expansive background in virtualization, Cloud, SaaS, Networking, Security, Collaboration, Video, Mobile, Enterprise & Service-Provider marketing.

What has the journey been like serving the role of Software Engineer, Product Manager, Chief of Staff, VP of Marketing at Panzura, and Senior Director at Freshworks. Please share the excitement and nervousness that came with every role.

Over the last 20 years, I have discovered that the 3 most important things for me are lifelong learning, driving business impact, and creating strategic growth opportunities. Early in my career, I explored multiple technology areas as an engineer and held roles across development, testing and automation. I did not box myself to doing only one thing for several years. When I moved from engineering to product management, I learned how to build and execute business strategies and work with customers. As I grew in my career to Director and VP level roles in Marketing and Sales, I developed the ability to make decisions, manage uncertainty, and motivate team members to do their best.

During your journey, were there any risky times that you experienced? How did they mold you and help you in your career?

Across my career journey, I had to reinvent myself almost every 2 years as I moved across companies, departments, or roles. Every move was an opportunity to push me beyond my comfort zone and take risks to do something new. I had a difficult transition when moving from engineering to business roles. Hiring managers for business roles were looking for experienced product managers, and I took on stretch assignments in addition to my engineering role to prove my abilities. Although I made several mistakes, I surrounded myself with mentors who helped me quickly learn and grow in the role.

During the lockdown, how did you keep the morale of your team high and more importantly your own morale?

I joined my current company Freshworks right before lockdown. Due to travel restrictions, I have not met my India-based team members in person and have managed them remotely for the past 1.5 years. We keep team morale high by organizing monthly online game nights, team jeopardy, and fun quizzes. We have a virtual water cooler slack channel where we share our hobbies such as painting, music, travel, and photography.

How important is it for one, in today's fast-paced and rapidly changing times, to take time out for leisure activities and spend time with family

and friends and keep their mental, psychological, and physical health under check?

My 3S approach to life is Self-care, Self-awareness, and Setting boundaries. It is very important to manage our own physical and mental health, and also take time to check in with family and friends. I personally practice the Art of Living SKY breath meditation technique, which helped me keep calm and stay positive through the pandemic. It is also important to be self-aware of our strengths, weaknesses, and habits so we can grow and develop ourselves. Finally, we need to set boundaries so we can balance all our priorities.

What do you do on days when you're mentally exhausted and feel like taking a break?

I go to the beach, practice yoga and meditation, and go for a walk. Recently, I started having dinner with friends. Occasionally, I watch a popular movie or comedy series.

Who has been your role model or someone you've looked up to throughout your life?

Indra Nooyi has been my role model throughout. I've always looked up to her.

You like traveling. What is your favorite go-to destination & why?

I love cruising in Alaska surrounded by Glaciers. It is so peaceful to watch the natural beauty of mountains, oceans, waterfalls, and glaciers.

Any advice to the young BITSians?

Believe in yourself and surround yourself with people who believe in you.

Putting Customer First

Ramkripa Ananthan (Pilani, '92, DAA '21) is the Director at Krux Studio. Before this, Ramkripa was associated with Mahindra & Mahindra for more than 24 years where she was the Chief of Design, Auto & Farm Sectors. Starting her journey as an interior designer, she played an instrumental role in taking Mahindra designs to new heights. She is the brain behind the new Thar, XUV 500, and many other Mahindra vehicles we see on road today.

You mention team building as one of your strengths. How do you build team spirit when working with members who are spread out across the globe? How do you maintain low attrition and keep them committed?

There were a few aspects that worked with me for building teams. First and foremost is the vision of the organization, and being able to articulate it well to the team through means of dialogue. I believe that the vision should be owned by everybody and should create excitement and enthusiasm among the team. This further helps in focusing on the common goal.

The second is being patient and devoting time to the people. One has to be genuinely interested in what everyone is bringing to the table without having any kind of hierarchy or barriers to communication. One should be willing to apologize for mistakes, whether perceived or real.

Another aspect of building teams is keeping them aware of what is going on within the organization, including its stakeholders and customers, and in the world, in areas of interest. One has to make sure that everyone is on the same page and there are no silos of awareness. Celebrating wins, especially the small ones, is an important aspect. Because the automotive development cycles are large, it becomes essential that the team is constantly engaged.

Language is a barrier when working across large geographies. I always try to learn a few phrases in the local language. This helps me participate when some people in the team start talking in their local language.

You've worked with brand identity and perceived quality. What aspects would you say are a must to make a model attractive to consumers?

In the current context, customers seek 'meaning'. Our brand values must resonate with the 'meaning' being sought by the customer, their latent desires. Design is the 'first moment of truth' when a customer sees or experiences a vehicle. The visual design or the user interface, has to strongly, effortlessly, repeatedly & transparently communicate the brand values.

If the brand values are 'freedom and adventure', and the customer is seeking a lifestyle that allows them to explore themselves and the world around them, then those emotions have to be evoked by the design. When you see the Mahindra Thar or Scorpio, or just sit in them without even cranking the engine, you get a sense of being free, of being able to go anywhere, do anything. You feel a jolt of adrenaline and of being in command.

The aspects of design that make a customer experiencing the vehicle feel that way, be it the stance, proportions, expression, quality of materials, seat H point, ergonomics, whatever, is what defines the identity.

Perceived quality on the other hand may be brand agnostic. A quality product is achieved when you have set certain specifications for the product and the outcome meets those parameters. However, perceived quality is about something the customer feels but is unable to articulate. That makes it difficult to set the specification, and hence to measure it. Perception is also not just visual; it is governed by all senses - touch, smell, hearing - and by preconceived notions, where brand perception plays an important role.

To achieve good perceived quality, one has to have cultural context, knowledge of competition, feel for future expectations from customers, and the ability to convert subjective values to measurable parameters.

Thar is now the hottest SUV that has a long waiting queue. Please share with us the background story of how the new design has made it a cult car for everyone.

The Thar is an icon, and there were aspects of design that were intrinsic to its character that we couldn't change - it was honest, purpose-built and adventure ready. The new Thar embodied both the original form and spirit, but we rendered it with modern grammar. For example, the design was inseparable from the vehicle's capability that meant closely working with the architecture team to get the right stance & proportions, while retaining or enhancing its off-roading parameters like tight overhangs and high approach, departure, and ramp breakover angles. We kept traditional elements like the asymmetric wheel arches in the front and rear, but added modern elements like a shoulder to introduce sectional strength and visual interest. High-quality surfacing, tooling, and paint

gave good highlights, which meant an appealing look. Excellent ergonomics, command seating, and a good user interface, with all modern features for connectivity, making the Thar now exciting for a regular customer, while before it was for serious off-roaders and functional buyers.

It has become a cult because it is authentic, it is riding a wave of interest in icons of a bygone era like the Ford Bronco or Mach E, and finally because it is a very capable machine that stands out in a crowded marketplace filled with generic modern crossovers.

Has the main focus of your design shifted post-pandemic? What caused the change, and do you see it becoming a permanent fixture?

In my world view, design is customer-centric. Yes, it is a representation of brand values, but the brand also targets its customers. So, the design must change when a customer's needs shift.

There are some obvious changes in customer requirements post-pandemic. For example, a need for a safe space. So, yes, there is a focus on addressing this need.

I am not sure if this is permanent or not, but if there's anything I have learned in the past two years, it is that nothing is permanent. There is, however, a sense of urgency in wanting to address the technological and environmental needs of the day.

Today's generation hardly prioritizes making their mark in the same company by staying for a longer period. You have stayed in the same firm for more than 2 decades. What made you stay for such a long time?

In the automotive field, development times are long. If you want to see a vehicle through from inception to launch, you would have to stay for 4-7 years.

It is quite normal for car designers to stay in the same group company for long periods. If you trigger one cycle of design language, it will be quite a few years before the entire portfolio is converted to that philosophy or vision. However, I'd like to say that I stayed for so long because I enjoyed my work!

What according to you makes the Indian automobiles stand out from the rest?

I am not sure Indian automobiles stand out from the rest. But I am proud of Indian automotive manufacturers like Bajaj, Mahindra, and Tata who have made successful designs like the Pulsar, the XUV, and the Ace (to name but a few), which have been successful for over a decade despite stiff competition.

Indian manufacturers have invested in getting a good understanding of customer needs, strong brands, excellent in-house design & development capabilities, high manufacturing and quality standards, sales and service networks, all of which are required for making automobiles that stand out.

Any skilled designer or group of designers who do their work diligently have the organizational support, and the processes required for good product development can surpass the customer expectations. And hence, be successful. In India, Hyundai & Kia designs are excellent and have huge appeal.

You've ended your stint with Mahindra & Mahindra after being associated with them for more than 20 years. So what's your next plan?

I have started my venture, KRUX Studio, offering expert design services in the field of automotive design & development. I have lots of ideas and hope to implement at least a few of them. I do hope to be able to contribute more to education and policy. There is a big wave of electric start-ups in India and I hope to be able to contribute to it.

You have worked constantly throughout your career. How was the time during the pandemic like for you? Were you also affected mentally during the pandemic?

There were may be 5-6 weeks when we had to work from home. That was quite difficult as many activities in the design field cannot be done from home. You need a studio with special equipment, machinery, and other support staff. Even for our designers who could work on certain software, we had to transport workstations to their homes and enable remote working protocols. For those who make physical prototypes, we devised exercises, like with origami, to keep them engaged, developing skills and widening their minds.

I was not affected mentally during the pandemic. Maybe because I went back to work in the second week of June and had to be responsible for not only the delivery of projects, but also the safety of my extended team. Being responsible for others' physical and psychological well-being means that you must be in a good place yourself. I couldn't be giving support or advice to my colleagues if I was feeling insecure.

What is that one thing that you'd like to tell your 21-year-old self?

Never look back? On a serious note, I think that I should have made a better effort to stay in touch with the wonderful friends, I made when I was 21. So, my advice to my 21-year-old self would be "Keep in touch with your friends and make many new ones. Make an extra effort to do so".

Constantly on a Lookout for Startup Gems

Gaming & Metaverse is a trend on the uprise

Surbhi Garg (Pilani, '11') is the Vice President of Equity at Trifecta Capital. Prior to this, Surbhi was associated with Reliance Industries, GenNext Venture Fund. She talks about staying updated with all the technical knowledge, the factors she considers while investing and why investing is important.

How do you manage to keep yourself updated with the technical know-how while working in the investment sector?

Reading and listening to experts are the two methods that work best for me to stay updated with the tech landscape. I am an avid reader and I read all types of content including blogs, newsletters, articles, journals, books, *etc.* Most of my reading happens early in the morning, before starting work, and on weekends, and listening is whenever I can't read – at times when I am cooking, working out, and commuting. I can always be found with my kindle and headphones.

Being an investment professional, what are the factors that you consider while making an investment decision? For instance, you wish to invest in a startup, so what factors would you keep in mind while investing in it?

While different investment firms have different criteria, which vary according to fund objectives and stage of the company that the firm invests in; there are clear must-haves and common things to look for.

Most important is Founders and the team – (1) factors like how they came together to launch the startup, what are the core competencies of each founder, leadership and team-building skills, prior work-ex / industry knowledge (if any), *etc.* (2) how strong is the second-level management team that they have built. As VC specifically, our bet is on the founder(s) as the fate of our investment is linked to their business acumen and problem-solving skills. Since most investors take small positions, the goal is to try to diversify rather than actively manage investment and support the founders in achieving their business plans.

Other factors include the size of market opportunity, the value proposition for users and specific pain points being solved, competitive landscape, proof of concept (early stage)/ unit economics (growth-stage startups), product stickiness, *etc.*

We have seen the advent of Metaverse and Gaming this year, with multiple startups raising money. What do you feel is the future of Gaming and Metaverse in India?

This is definitely a megatrend that I am keenly following. With people spending more time indoors due to Covid-19 restrictions, we've seen a huge upsurge in esports /online games startups and increased adoption of digital platforms for shopping, entertainment, and social interactions.

I believe this is only going to increase in the future. As the world becomes more virtual, digitization increases & technologies/products mature, metaverse will pave the way for next-gen human interactions. It is very exciting to see large companies and younger startups choosing to build products for the metaverse.

Why do you think it is important for people to invest?

Investing is so much more than making money work for you. I feel this is one profession where you can bet on your beliefs/passion and see the results as ideas turn into businesses. Investing is not just quantitative analysis, but being creative and imaginative about the future of society, industries, and human life. It also gives me the front seat to witness startups' 0-1-10 journey very closely.

How did the switch from electronics to finance happen? Or what was the motivating point for the switch of the field?

During my undergrad studies at BITS, I got rigorous training to hone my analytical and critical thinking skills. My curiosity to understand technologies powering our lives found a natural home at BITS, and I can't be thankful enough for how the curriculum and professors taught me to apply engineering concepts to solve real-life problems. Honestly I never really switched from electronics to finance. MBA was a natural next step in upskilling myself and further developing my interpersonal and managerial skills. I still rely on my undergrad training to think like an engineer while evaluating the technologies on which businesses are being built. Complementary to this, I also lean on my post-grad training in finance and management to think like a business woman and make smart investing decisions. I feel fortunate and privileged to have studied at such an elite institute. Learnings from my undergraduate and master's degree are deeply intertwined and I don't think I could do justice to my investing role if I wasn't trained in both.

What is that one thing on your bucket list that you just can't wait to tick off?

I'd love to revisit the Pilani campus with my friends and family that feels like a distant dream right now.

Alumni Speak

Career <> Passion

Why Choose When You Can Have

Anish Kothari (Hyd, '09) is a B.E Computer Science graduate and at present works with MaaS360, an IBM company. He is one of the few who has ventured into the field of game development, choosing later to move to security. Below he talks about pursuing passion sustainably, and delves into the needs and challenges of the field.

I learned to program quite early in my school days, and it was something that I really enjoyed. When I entered BITS, I began modifying existing system files of games that fueled my interest in the field. The BITS community helped me develop playing games as a hobby because I used to play FIFA a lot in those days, and I could always find folks playing a diverse set of games to unwind. During my Practice School II, I worked for Playdom (owned by Disney Interactive), which was a massive boost as it provided a streamlined and effortless way for me to delve into the game development field.

While I am no longer in the gaming industry, I often contribute to some open source communities building "mods" for different games, and providing add-in features. My time at Disney was an immensely rewarding experience. I worked on a game based on the Pirates of the Caribbean franchise. It was an open-world MMORPG with an auxiliary storyline. It was quite successful with over 20 lakh people playing it at its peak. However, I decided to quit Disney when they began to close down their gaming studios in several countries due to restructuring.

I then moved to Samsung Research, where I worked on building secure enterprise products and it felt like a natural transition from gaming. Instead of protecting in-game assets, I was now protecting enterprise data. I currently work on developing security products with MaaS360, an IBM company.

At Disney, what intrigued me was the fact that the game developers not only have to look at their task from a programming angle, but also from a psychological viewpoint. If you introduce a new story, you need to bring in elements that capture the interest of all kinds of players. In my personal opinion, game programming is trickier than developing normal software. If there are snags in the game like a server lag, lack of a smooth story transition, or even numerous features and options that can tend to be overwhelming, people will quit. There must always be a hook that catches people's attention, and keeps them playing. The game has to be challenging, refreshing, and should provide an amount of gratification simultaneously !

For nearly all programming jobs, there are numerous guidelines that dictate the work that goes behind the code. But game development begs to differ. For example, the use of college-level physics for writing code such as the angle at which to place a cannon for optimum shooting came as a surprising aspect of my job.

People often discount studies hinting at computer games helping brain development and complementing education. They look solely at the fun aspect, but there are reasons to believe otherwise. As kids, a lot of us grew up playing emulated Pokemon games. Every gym battle needed a puzzle to be solved before moving ahead. Despite outdated graphics, these classic games still hold their own today because of the fun factor of solving puzzles that tie in with the storyline.

Another example is the famous coding challenge taught to students - The Tower of Hanoi. Mass Effect, a popular game series, had the Tower of Hanoi to be solved as part of the story. Such things help in the development of rational thinking and problem-solving ability.

A part of why recent games drift away from similar challenging elements is probably because there is a lot more inter-player interaction. It is also far less

lucrative to insert such challenges when solutions are available on the internet, barely a click away.

Speaking of challenges, the primary one is that there are limited options to work as a game developer in India. We aren't attuned to the idea of paying for games, which is why few gaming companies target the Indian market. Next are moral challenges - games in ethically grey areas that can cause socio-economic problems. Finally, there are programming challenges. It is a constant battle to keep the game's code evolving to thwart people trying to beat the system by dubious means. Hoarding of in-game components is another obstacle, which we avoided by making any purchases non-transferable.

As advice to fellow BITSians with similar dreams, I'd like to say that apart from a love of playing games, you should also look at them from a technical standpoint and understand the intricate details which make the game click. Broadly, you'd need three factors: (i) how the game works and its constraints; (ii) programming skills; (iii) and marketing. If you are an indie game developer, expect it to be an uphill task to come up with a feature that makes your game stand out.

The Hustle was Worth it!
Pursue Ph.D. in subject that really interests you

Krunal Patel (Goa, '15) is pursuing his Ph.D. from Polytechnique Montréal Technology University. Before this, he worked with Google for a position at the Bangalore office, later shifted to Paris in 2017, and in 2019, he again shifted to Cambridge (MA) office. The wunderkind who once left BITS Goa to make history is back to give an interview and tell us more about his life after graduation.

How was working with Google like?
Working with Google was an indescribable experience where I got to work with some of the smartest people and got the opportunity to learn a lot. The work culture is amazing, and my colleagues and managers were always trying to help everyone grow in their careers. They even helped me with my Ph.D. process.

What are the things you learned while working with Google?
This was my first job so I had no experience of working on large-scale products. Eventually, I improved my programming standards, design skills, and overall software management skills along with numerous non-technical soft skills. For example: leading a project, presenting my work in a better way that helps with promotion, disagreeing in a respectable manner, giving constructive feedback, *etc.* Overall, it was a great follow-up for my personality development after BITS.

What made you interested in the field you are currently doing a Ph.D. in?
Sometime after I joined Google, I was introduced to the Operations Research team. I started working with them because I was interested in discrete optimization so I started working with them on a 20% project. Seeing my work, the manager hired me full time and I moved to Paris. It was the first time I got to work with the team in the research product area. I got to read the papers about the state of art algorithms and implement them. Later, I also got to experiment by implementing my own ideas. People often say that research is like gambling; you mostly fail, but you get intermittent success so it is very addictive. Once you get into it, there's no way out. With time my interest grew, and I decided to go for a Ph.D. in Operations Research.

How much of a role do the subjects you learned in your college (mathematics and CS) helped you in your current area of research?
A lot of them directly helped me with the basic foundation, for e.g., operations research, optimization, algorithms, *etc.* Others helped me in an indirect way. When you take these courses, they not only teach you the technical parts, but also change the way you think and approach new problems.
In a way, it is training for your brain. And thanks to my fellow classmates at BITS, I had to work really hard in those courses to get good grades, so in the process, I developed grit and discipline, which are much needed for research.

Was it difficult to decide between a job and doing a Ph.D.?
In a way it was. There was a huge financial and social risk attached when I decided to quit my job to go for my Ph.D. So obviously a lot of people, direct-ly or indirectly, questioned my decision. But given my interest level, I was very sure about my Ph.D. plan so went for it anyway. Needless to say, a lot of people encouraged me and supported me as well.

What advice would you give to students who would like to pursue a Ph.D. in the future?
If you want to pursue a Ph.D., make sure that you are really into that subject. You should start only if you know that you will finish your Ph.D. Good grades and better connections would always make your admission process easier. Explore different subjects by means of electives or just taking/auditing courses online, that would help you find something you truly like.
Finally, try to work on research projects either at BITS or at other institutes. That way you can get some exposure to research and also make good connections that can potentially help you with your Ph.D. applications. Alas, never stop learning.

Nawgati: India's one-stop, fuel-agnostic solution

On the way to change the country's fuel station!

Aalaap Nair (Pilani, '20) & Vaibhav Kaushik (Pilani, '21) are the co-founders of Nawgati, an intelligent queue management system for fuel stations. Below, they talk about their start-up and how it will help the people in saving time at fuel stations, and the support they have received from Pilani Innovation and Entrepreneurship Development Society (PIEDS), the Technology Business Incubator of the Pilani Campus.

How did this idea of queue management and monitoring strike you, and how did you build the team?
It all started with a cab ride I took in Noida, and the discussion that followed with the driver sparked the idea for Nawgati. The drivers have to wait long hours in queues at CNG stations since they are unaware of the real-time queue status at other stations. The sporadic demand is distributed unevenly, temporally, and spatially and affects both the fuel providers and end consumers. I started this company in 2019 with my batchmate and Co-Founder, Aalaap Nair. We soon joined forces with Aryan Sisodia who joined as the CTO. We hired juniors from BITS who have been working with Nawgati for more than a year now. Trust is the single most important factor when building the team for an early-stage startup. Everyone at Nawgati is an active part of the product development and ideation processes, and our strength lies in leveraging our diverse backgrounds to develop industry-first features into our product.

As the world is gradually shifting towards electric vehicles, do you think your startup would be relevant even then?
With the concerted developments in EV production, battery technology, and charging infrastructure, slow charging/fueling time will take the center stage, and Nawgati will be at the forefront of managing and distributing congestion at fuel stations. If anything, the electric revolution will further bolster the case for queue management at scale, and Nawgati's role in managing congestion and routing vehicles efficiently will optimize resource utilization and help early adopters in getting the best experience out of switching to electric.

Do you think your startup is profitable enough for investors to invest in? If yes, how?
We believe that a startup being "profitable enough" to elicit investment is a problematic notion. We are a team worth investing in, engineering from the ground up a product worth investing in. Where most companies solve for congestion bottom-up, *i.e.* by tracking a subset of users in a system to infer the state of congestion, we solve the problem top-down, by extracting the ground truth at the source *i.e.* fuel stations in our case. Nawgati's vision is streamlined vehicle flow, better traffic management, and reduced congestion/operational mismatches. Isn't that worth investing in?

What kind of support have you received from BITS Alumni and PIEDS?
PIED Society has provided Nawgati with unparalleled attention during the incubation phase, and has helped the company grow rapidly. The startup has been seed-funded by the PIED Society under the Meity Startup Hub TIDE 2.0 Grant (Ministry of Electronics and Information Technology), and has been provided with additional funding based on the milestones achieved by the company. Nawgati has also benefited from the introductions to BITS Alumni in our domain, who became early supporters of our product.

What is the technology used for developing Nawgati?
Nawgati uses Computer Vision and Bluetooth positioning to streamline queues inside fuel stations, while offering retail insights and real-time congestion data to dealers and fuel providers through its business-facing arm, Aaveg that uses a network of edge devices at retail outlets to monitor and manage congestion at scale and provide actionable, real-time insights to fuel providers. These devices process the live feed, detect and classify vehicles, check for protocol compliance, and flag potential violations. Deployed at scale, it could power autonomous queue management systems, allowing fuel providers to respond dynamically to congestion by scaling capacity to match demand. Nawgati's fueling app ingests congestion data generated by Aaveg to serve end-users, route them to less congested stations in an area and manage high volumes of demand while maintaining the quality of the fueling experience.

Who is your initial target audience? How do you plan on attracting customers?
Since Nawgati's Queue Management System is fuel and vehicle agnostic, it creates substantial value for all players in the fueling value chain. This includes everyone from top management at major fuel providers to station managers at individual retail stations. On the consumer front, the product speaks for itself. Everyone would like to cut down the wait times while fueling and enjoy a streamlined experience to boot, be it an Uber driver or a major logistics provider with interstate ops.

Where do you see Nawgati going from here?
At present, there is an acute mismatch between supply and demand at fuel stations in metropolitan cities across the country. During peak hours, centrally located retail outlets come under heavy congestion, degrading the customer sxperience at these outlets, slowing down traffic on arterial roads, and inconveniencing passengers. On the other hand, low demand in some areas at some points of day cause operating losses at impacted retail outlets. Nawgati's Queue Management System addresses these concerns, by enabling fuel providers to respond to congestion in real-time, and consumers to be routed away from We hope to radically transform the standard fueling flow at fuel stations to reduce the service and wait times, streamline traffic, and boost reliability and customer loyalty.

The Pilani Pioneers
Giving back to Alma Mater Innovatively

Gaurav Mandlecha (Pilani, '19) and Durjai Sethi (Pilani, '19) have co-authored the book titled 'The Pilani Pioneers'. The book has interviews with celebrated BITSian startup founders, CEOs, entrepreneurs who have left an everlasting impact on the Indian and the global scene.

Here, Durjai talks to us about how the book came about, their greatest learning while interviewing these BITS alumni and if there's going to be 2.0 The Pilani Pioneers!

How did the idea of the book take wings?

Once, Gaurav mentioned his winter internship at Rolls Royce, Mumbai where he got the opportunity to meet Ajoy Misra, the MD & CEO of Tata Global Beverages. While interacting with him, Gaurav was thoroughly inspired and wanted to share this knowledge with everyone else too, especially with the people at BITS. So he came up with the idea of the BITS Leadership Summit or BLS that could not get through. However, the idea of disseminating the knowledge to everyone really stuck with Gaurav.

So over the period of one year, Gaurav interviewed numerous business leaders. Before interviewing them, Gaurav read articles, blogs, and any other content he could find about these leaders and then would cold mail them asking for an interview. The majority agreed and by then, Gaurav was done with 22 out of 25 interviews when he onboarded me as his co-author.

On BITSians Day 2019, I published an article about life at campus and posted it on BITSians For Each Other - a Facebook group with 35,000 alumni members. The article met with an overwhelming response and several alumni, even those who graduated in the '60s reached out to me after reading it. Gaurav read it too and told me he wanted to publish these interviews as a book and wanted me to write it. And that is how The Pilani Pioneers, as a book, happened!

You're passionate about theatre, writing, psychology, and philosophy. If given a chance what passion would you like to pursue full time and why?

A great question, because I am equally interested in a lot of these things. But if given a chance, I'd like to pursue theatre because it would take care of the rest of my interests. With theatre, you can write plays, and to understand the character, you'd have to understand its psychology.

In an ideal world, pursuing theatre full time would be fun, it's an exciting journey to be on and it helps you understand so much about the human psyche, life in general and not to forget it is a great creative outlet. Acting is essentially active empathy and one really has to go out on the stage and care about someone else's life. One has to think, feel and do as a different character as it helps in becoming more empathetic towards everyone in need. So for anyone who has the option to perform on stage through theatre, don't miss it. It is a beautiful experience and for that, I'm grateful to have been a part of the Hindi Drama Club on campus.

What were some learning experiences for you while interacting with these most celebrated alumni for the book?

While writing this book, we can share one great learning experience which both of us got - the opportunity to give back. All these 25 people were part of BITS at different parts of time. They might or might not have interacted with each other, but there was one common thread that connected all these pearls, which was how much they wanted to expand the size of the pie so that everyone had a bigger share to take rather than them taking the bigger share. It is the power of being a successful giver. They think of the world as a positive-sum game rather than a zero-sum game which is truly inspirational and you'll find it in every chapter. Mr. Pradeep Kashyap empowered 60,000 women entrepreneurs through Project Shakti, Abhishek Humbad founded Goodera that helped other firms manage their CSR channels, Sandhya Prakash is an environmentalist to the core and founded Beacon Energy Solutions to essentially help save the planet by helping organizations cut down electrical consumption. You'll find these in each and every chapter, and that is extremely inspirational & aspirational for us.

How did you use the author royalties that you received from the Pilani Pioneers?

We are donating 100% of our royalties to a scholarship at BITS to promote the culture of entrepreneurship in the hope of the betterment of the larger community. With this, we really hope to inspire others to give back whenever possible in whatever amount possible.

The motivation to do this came from the gratitude we have towards our alma mater, and the book wouldn't be possible in the first place without the formative years we spent at Pilani. We couldn't wait to give back to the place where we got most of what we are and have accomplished.

What would you say are the future aspects of this book?

This one is a really exciting one, and we are thrilled to share that the book has been optioned for an audio-visual adaptation by Mr. Sunil Bohra, producer of Gangs of Wasseypur and Tanu weds Manu series, and his production house - SACRED ELEPHANT PICTURES PVT LIMITED. It will be released on an OTT platform as a movie or a docuseries. So we are really looking forward to this!

Can we expect some new books from you in the coming time?

When 'The Pilani Pioneers' came out, several people reached out to us and asked us to write a 2.0 of this book, suggesting alumni names who could be interviewed for the next book. They listed out their achievements and even helped us connect with those people. The history of an esteemed institute like BITS cannot be summarised with just 25 people, there's more to it.

Of course, a 2.0 would be an exciting journey to write because there are so many other great business tycoons whose stories need to be told and we would be excited to work on it. But first, we have to give The Pilani Pioneers its due time, and respect. Once that is done, we'll surely get together for the 2nd part!

"Future of Gaming and Esports is brighter than ever!"
Passion & Success go long way!

ArunMozhi Verma is the Head of NODWIN Gaming for South India. Skilled in Requirements Analysis, Supply Chain Management, Management, Leadership, and Team Management, Mr. Verma shares how he developed an interest in the Gaming industry, how the industry is just in the beginning stage, and how it's going to bloom in the coming decade.

How did you develop an interest in gaming and esports? How did BITS aid you in realizing that Gaming and Esports were your callings?

I started playing with consoles when I was 5 years old. My grandfather worked in one of the best auction houses in the country because of which I got numerous gadgets to play with, but only during the weekends. I have played on the Atari 2600, Atari 7800, NES, and SNES. I switched to PCMR during the late 90s and started playing at gaming cafes in Chennai. I built a team for counterstrike and started participating in WCG, ESWC from 2001 to 2008. Yogesh Nagdev, a friend I made while traveling the country, helped in getting run the 1st Halo Championship in India, Chennai edition tournament for Microsoft in 2003 at Reliance web world.

In 2017, I met Shiva of Skyesports. I ran operations for their first championship in 2019, lent my PC for the PUBGM broadcast and my phone for the WCC event. In 2020, I won the AESF master's India title and defeated Pakistan, Sri Lanka in the South & Central Asia region. In 2021, here I am with Nodwin Gaming! I am sure it's going to be fun making passion into job. One thing I'm sure about is that I'm in it for the long haul, whatever it takes! Being an alumnus of BITS is not about wearing one's heart on the sleeve or the prestigious stature of the institute. It is about the respect we have for our alma mater and the feeling of gratitude towards the staff who churn out great students year after year. A sense of responsibility in the things I do, I have developed at BITS and I will always be thankful for that.

During the pandemic, the Indian gaming sector bloomed like never before & investors are pouring heavily into the field. How do you see India's gaming industry 10 years down the line?

The coming decade will see the rise of the Indian gaming industry. Whatever we're seeing right now is not even the beginning. Once the Indian market gets global recognition with Champion athletes, that will be the time when real potential will be realized.

What are the potential revenue models for the gaming organizations other than advertising?

In India, casual gamers are more than the population of many countries in the world. With such an enormous number, focussing on the quality of home-grown content becomes all the more important. In the gaming industry, the quality content is amazingly new-made in Indian games.

What are other revenue models other than subscription?

Globally, subscription is something which has been tried for a few years now. There is a game pass for Xbox/pc. Sony is coming up with their iteration to challenge Microsoft on this. Netflix is coming up with its iteration. Exciting times ahead.

As the head of NODWIN gaming for South India, what is your vision for the company?

Right now, Nodwin Gaming is South Asia's largest esports & gaming company. We certainly have the potential in making Nodwin Gaming the world's largest Esports & Gaming company.

Off-Beat BITSians

Garv Malik: Scrolls memes guilt-free at office

Garv Malik (Pilani, '15) is a stand-up comedian. He is also a meme officer at slice. Here he talks about how the switch from civil engineer to a comedian happened, his job as the 'Chief Meme Officer' and the journey BITS has played in his career.

From civil engineering to now stand-up comedy. What inspired this switch?

I took civil engineering instead of CS by choice because I thought there was more scope in Civil. My seniors told me this was extremely funny and that's how I got inspired.

When did you realize that comedy was your true calling?

There is no true calling. I just wanted to work as little as possible and take "lite".

You work as a Chief Meme Officer at 'slice'. Please share something about this role that sounds very unique and interesting.

I love clicking on clickbaity things and someone tagged me in the job post. I do handle all aspects of marketing right now, but I get to scroll through memes in the office, guilt-free.

Was it difficult convincing your family members about not pursuing engineering and switching your field that too to comedy?

My neighbor's son (Amit Tandon) is a much more successful comedian, also he did his MBA from IIT Delhi, has a Netflix special. So I have disappointed my parents not by doing comedy, but by not doing it enough.

What role has BITS played in this journey?

I discovered Stand-up comedy while in BITS, My first performances were at BITS, I was able to take the plunge of quitting my job because my degree allows me to return to the workforce, and no matter what happened, I would still have my degree, alumni to fall back on.

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WRITE US @

alumnirelations@pilani.bits-pilani.ac.in

Alumni Relations Division
Birla Institute of Technology and Science
Vidya Vihar, Pilani, Rajasthan
333 031

MESSAGE FROM
Editorial Team

Being a convent student throughout my student life, the month of December caused anxiety and stress but also excitement and joy. 2nd term exams caused anxiety but the feeling and the Christmasy vibes set all of it aside. December meant hearing the school choir singing- *'Tis the season to be jolly, fa-la-la-la-la-la-la-la-la', 'Joy to the World, the Lord has Come, Let Earth receive her king'* and others which I probably will have to find on YouTube and hum along. What made December even more cherishing is when my grandmother hid sweets, chocolates and chips in our room, only for us to wake up the next day and have those first thing in the morning. *Good times indeed !*

Every night before Christmas until a certain age, we were hopeful that the next day when we wake up, we would get to eat sweets and Christmas candies on the day of Christmas.

Hope. One word, expression, feeling which made us look forward was hope. We were full of hope as children. As time passed, I grew and realized that Santa, and candies were momentary happiness and does not last long. However, I did realise that if I were to stay happy and hopeful, it all depended on me, and not something external. For that to happen, I had to be hopeful. Hopeful for better grades, hopeful to get admission into a good college and for a good job opportunity. You see, when you are hopeful, you start perceiving things in a different way.

I read somewhere that *'Winter Always turns to Spring'* and never have we ever heard of winter turning back to autumn. What makes it seems last is our mindset towards it. Good times seem shorter because we don't dwell on them because we're too happy to think about anything else. Bad times seem to last longer because we keep dwelling on them and think about them excessively.

To be happy, all you need is hope. Because *'umeed pr toh puri duniya kayamb hai'.* So in the new year, let us all try to be a little hopeful, happier and kind not just to ourselves but everyone around us!

Happy New Year!

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